PROLOGUE: JOEY AND THE NEWPORT POSSUMS.

1. The Baby on the Doorstep.

The whole thing really began with Joey, a baby bushy-tail possum who was left on my doorstep in spring 1969. The old dog, a very good-natured fellow who had to be taught to kill bush rats when they reached plague proportions, proclaimed loudly that he had one cornered between two potplants, and wanted someone to move them so he could get at it.

I was reluctant to comply. The rats by this time had been reduced to a handful that did no harm, and while I have no love for them, I have no special animus against them, either. But the dog insisted, and kept insisting, for more than half an hour, so I finally went out and moved one of the pots - and hauled the dog off by the collar, yelling for assistance.

Instead of a rat, there was four inches of baby possum, hissing and swearing its defiance, its arms upraised to strike, its non-existent teeth bared to bite the attacker.

Joey accepted warm milk, ia and was made comfortable in a warm cloth. We knew virtually nothing about possums, except that they were nocturnal, and should be in warm dark enclosed places during the day. This in fact proved to be true, and all his physical requirements had indeed been met, but nevertheless it became quite evident after a couple of hours that he was dying.

I moved him on to my bed, still wrapped in his cloth, but leaning against me so that I could keep a better watch on his condition, and in about an hour he was a perfectly well and extremely contented baby possum.

Afterwards, I remembered a very young white mouse I once had as a pet; someone told me that if I wanted him to survive I had to put him inside my jumper, where he could feel the presence of another live animal. Joey had lost his mother, and he was going to die, but now he'd found her again, so everything was all right. Mother was defined as a large warm animal - and, although I didn't know it then, hairless from the point of view of a young baby, since the inside of the pouch is unfurred - which protected him, fed him, and against whom he curled up to sleep.

I had also learnt another basic lesson about possums; while they can get over and compensate for almost any physical disability which does not interfere with their behaviour patterns, emotional factors can kill even a strong healthy possum.

Having been appointed mother to a possum I had to set about finding out what this entailed. This proved something of a problem. The books available at the time were demonstrably inaccurate, as observation of the local possums showed.

One was doing fine, until it said, `but they always have twins.' I think this statement may have arisen from a confusion with ring-tail possums, which are not, in fact, very closely related to bushy-tail possums (trichosurus vulpecula vulpecula, `Hairy one, little fox, little fox'); the behaviour patterns of the two species indeed appear to differ markedly. I have never known a case of multiple birth in trichosurus vulpecula vulpecula. I've probably seen a couple of hundred mother-and-baby situations, but all in the northern Sydney area, so I'm in no position to say that it never happens elsewhere. But in this district, one is the norm.

I have seen apparent cases of `twins', but all were by adoption,

a. Cow's milk. This is most inadvisable with other native animals, including ring-tail possums; soy milk is safer.

and all obviously far from ideal arrangements, which suggests that this is not what comes naturally. $^{\rm ii}$

Another of the textbooks available at that time produced one of the half-truths that seem to bedevil the literature, `constant exposure to bright light will kill them'. Undoubtedly this is often true in effect, and doubtless in most cases the inaccuracy is of academic interest only, and makes no difference to the wretched possums. But in others, that fine distinction is of vital importance to the animal.

To a possum, bright light means daytime. A possum in the open in the daytime is a possum in trouble - unable to see, unprotected and confused by strange noises, it knows it is at the mercy of predators. While bushy-tail possums spend quite a deal of time on the ground, there is always an element of danger attached to this: they can move like a flash over a short distance, but over more than about ten or fifteen feet they are no match for a dog. They consequently avoid open ground whenever possible. A possum exposed on open ground in the daytime is a dead possum, and it knows it. If you take a normal, conscious possum, place it in an exposed, lighted position, and make it impossible for it to get away to darkness and safety, no doubt it will die - of terror.

Low light, voluntarily entered under circumstances which allow them to retreat at their own discretion, is a different matter. Even before Joey's appearance there had occasionally been possums making themselves conspicuous in the half-light or peering in at the windows at night. It was only in retrospect that we realised what that was all about - possums don't have to make themselves visible unless they want to. These possums were in the habit of getting handouts from neighbouring houses, so they were exploring the possibility of training other humans, closer to home and so more convenient. But once we started to watch them it became evident that possums who are accustomed to coming into lighted rooms can do so without too much distress, and without apparent detriment to their nightsight.

None can see well in such light - it seems to be roughly equivalent to the case of a human in semi-darkness. Some practised possums can contract their pupils to a pinhead to cope with the extra light, just as your own nightsight, being a matter of muscular co-ordination, can improve with practice. Others never master the trick. In any case vision is limited, sufficient for certain activities with known objects, but not for the full range of normal activity, or to cope with the unexpected. The analogy is not exact, however, since with possums sight is in any event less important than the sense of smell - I have known nearly blind possums to continue to function quite competently in their own known surroundings -- and, provided they are in a known safe place that smells familiar, most find light tolerable.

As with all things possum, it is a matter of degree - and lack of compulsion. No normally sighted possum is actually comfortable in light stronger than bright moonlight, and all prefer darkness. Even those raised in the house, Joey, Snoopy, Kylie, who would of their own accord get up in the middle of the day and stroll across the room for a snack, still preferred the darkest corner of a room lit only by a 40 watt reading lamp when they wanted the company of their human `mother' at night.

And the light has to be steady light. The muscular adjustment involved in changing the size of the pupil takes time. Above all, sudden surges of light, such as a flash bulb, a bright torch or car headlights, not only totally blind, frighten and completely disorientate an animal with eyes adjusted to low level light, but actually hurt, as I can testify from my own personal experience.

Baby possums are especially sensitive to bright or sudden light.

Their eyes are particularly sensitive even to low light, since they have not yet developed the muscular co-ordination needed to adjust their pupils, rapidly or otherwise. I have no doubt at all that constantly exposing a baby to bright or even moderately bright light, or even brief exposure to blinding light such as a flash bulb, could do serious and probably permanent damage, and at the very least terrify the baby to a degree which itself could be harmful.

Again, as with all things possum, it depends to a great extent on the individual animal and the particular circumstances. On the other end of the spectrum, I have known two nearly blind possums, their eyes almost covered by cataracts, switch from nocturnal to diurnal, apparently because the daylight allowed the remaining surface of their pupils to collect sufficient light to see, dimly, whereas they were totally blind at night.

The book's pronouncement is a good general guide in the absence of other information, on the principle of safety first, but the reality is more complex, so in practice there is more latitude.

Not all books are by any means as fatuous, and some which have been published since are a considerable improvement. At a later stage in Joey's development I found a non-academic book, Paule Ridpath's Possum Moods, b which contained far more pertinent information. But at the time, even in my ignorance, a deal of what was in those which were available did not seem to me to correspond to the observed facts; where it did, the information was brief, and sounded like the sort of knowledge derived from pathology, or isolated laboratory specimens. While I've no doubt that the information provided was accurate, it was very much alive, free possums that I had to deal with.

I got more assistance from the popular ethology books such as Konrad Lorenz' King Solomon's Ring and especially On Aggression. A great deal of what is written there does apply. Possums show a lot of the same behaviour patterns - the same `parliament of instincts', the same territoriality, same `critical distance' the the syndrome, same ritualization of behaviour, the same sort of aggression and fear reflexes, the same use of ritualized aggression gestures as gestures of affection.

However, they seldom, if ever, show them in precisely the same form as any species discussed there. And they do not have exactly the same combination of behaviour patterns, possessing some, but not others, and substituting idiosyncratic ones of their own. Female dominance, for example, is rare. It happens in possums for good and highly specific reasons pertaining almost exclusively to bushy-tails. I'm told it is found in other species, e.g. the dwarf mongoose - presumably for equally good and highly specific reasons. One wouldn't expect an exact coincidence with any other species - after all, the peculiar and unduplicated combination, and the peculiar forms, are what, behaviourally, makes a species.

Since there was a limit to what I could learn from books, I had to learn from possums, by trial and error.

I did have some idea that Joey should learn to climb trees, and that he should ride on his mother's back, so I put him on my shoulder and took him for short walks each night. I introduced him to small trees, and, partially by putting him on them, but mostly by letting him go of his own accord, got him to start the possum equivalent of toddling.

On about the fourth night a young adult possum came to the window of my room as I was feeding him on bread and milk and grapes. I didn't know what to do, not knowing whether it was his mother or not, or

b. See Preface for the publication details of this and other works mentioned.

whether its intentions were maternal, amorous or murderous.

Finally I decided to risk letting it in, in the hope that it was indeed his mother come to collect him. I opened the flyscreen very carefully, and offered him to the stranger, keeping my hand partially between them in case of sudden attack.

The baby said, `Eek, a monster!' and shot up the opposite wall of the room. The intruder said, `Eek, Another Possum!' and took off into the night.

She came back a few nights later, and this time her intentions were quite clear. Having seen her baby (as he very probably was) safe and being regaled with food she only dreamt about, she decided she wanted some of the same for herself. She had no real interest whatsoever in the baby itself.

I labelled her Jenny, and when I came to know the local individuals it became fairly certain that she was indeed the defaulting mother. She was at the stage where she should have had her first baby - about a year old - and even among a group with a strong family resemblance, the similarity was unmistakable. Joey was always a miniature Jenny.

About the same time our nightly walks were interrupted by the sudden simultaneous appearance of what seemed like hundreds of possums, all around us - literally dripping from the trees, hanging by their tails and reaching out to grab my hair, coming along the ground to me, holding on to my legs, quite gently, with their front paws, embracing them and trying to climb up.

I was terrified, and so was the baby. I thought they either wanted to kill him or wanted him back. I had already found out that Joey went berserk in the presence of bread, and I'd brought some with me to lure him back down the tree if need be - quite unnecessary, in fact, since by now his `instinct' to return to his mother was directed towards me - so I tried to bribe them with it, distract them while I got away.

This, in fact, was all they wanted. They had no real interest in the baby for its own sake, but his presence on my shoulder marked me as a person who was accustomed to possums, and so trained to produce food on demand. Unbeknownst to us, the neighbours had been giving them handouts for years, and they were only too delighted to add another house to their nightly stops. As there was more bush on our place, where they would normally browse in any case, eventually those who lived nearest made it their regular headquarters, and it was from them that I learnt the rules and regulations I needed to know to raise a baby possum.

2. `There are Hairies at the Bottom of My Garden...'

I learnt very gradually, a little at a time, by experience. I usually learnt after the event, when the consequences showed whether I had guessed rightly or wrongly. I learnt a little, at first, from the local possums, and far more from Joey himself. After he disappeared, I learnt far more still from the possums I met at that stage. And I learnt even more from Snoopy and her Ingleside descendants and neighbours. I have no delusions that this makes me the world's greatest expert on possums: the most important thing I learnt was that since all possums are individuals, no one `knows all about possums'. It merely makes me the reigning expert on these particular possums - since I'm the only one.

There isn't time or space right now to do anything but summarise what I know in a series of dogmatic statements, and there isn't time or space for much in the way of examples or case histories. Some will come out

in the story, a few have been appended in the notes, and I can supply others if anyone wants them.

Possums are essentially intelligent but pragmatic animals, which never exert themselves in any way, including demonstrating their intelligence, without a reason. There are very strongly marked behaviour patterns, which show up even in the play-patterns of isolated infants, and so are innate. These behaviour patterns make eminent good sense under the conditions which generally apply to their lives, but I've known every one of them broken by an individual intelligent possum when those conditions cease to apply.

There is no such thing as `always', no such word as `never'. The generalities drawn here are of an order of truth somewhere between `all humans live in houses' and `all human females stay at home to look after the house, and all human males go out to find the food.'

Antipathy towards The most basic of all is that all possums hate all other other possums. The greatest anathema to a possum is Another Possum. There is possums a certain distance (`critical ', or more properly, `personal' distance), and any possum which comes within that distance must be attacked. Critical distance varies from possum to possum and place to place. In built-up areas, where circumstances have forced more possums into a smaller space than in more bushy ones, critical distance can drop to almost nothing, but physical contact between two adult possums always involves some degree of agitation: fear or aggression on one or both sides. And a retreating rump is an unfailing aggression stimulus - it must be bitten until it is out of range. The only exception is the relationship between mother and baby, and that could not be more different.

Behaviour Strange youngsters receive a milder version of the treatment towards handed out to strange adults. A baby which approaches the wrong female will strange be chased away- scolded, spanked with closed teeth, or occasionally nipped, babies depending on the character of the adult female. Males are generally fairly tolerant, but more prone to do real damage when they do attack. The baby's own mother will intervene if matters become too serious, particularly if the attacker is a male.

towards A hand-reared baby who has maintained contact with the local hand-reared group, i.e. is known to them as an individual by scent and sight, is babies treated by members of that group in exactly the same way as any other youngster of the same age, physical capacity and gender.

It is disadvantaged insofar as its mother is grounded, and can't interfere if the problem is twenty feet up a tree. It is therefore in much the same situation as the baby of a weak mother: if the baby is sensible, and physically agile enough to get away and come down to you, or at a later stage disappear into the bush for a couple of hours and return to its frantic foster parent only after the others have departed for the night, it grows up to be possum. It will almost certainly develop some eccentricities and idiosyncrasies, stemming from the peculiar environment in which it was raised, but the same is true of babies raised by their own mothers: unless its peculiarities are potentially dangerous in a `wild' situation, or its basic behaviour patterns have been too badly distorted, it is still a viable possum. Alternatively, if the baby is physically disabled, but has the sense to stay within range of its `mother', it will still survive.

The baby, in order to learn what it has to know, must see other possums in action on occasions, and later, when it's three or four months old, it's got to learn by hard experience. But the worst thing you can do is to put a young baby into a conflict situation by placing it in physical contact with other possums. This is not at all what I mean by `maintaining

contact with the group'. What you do by `instinct' is pretty much what its own mother would have done - keep it out of trouble, keep it out of the way of the others wherever possible, protect it to the utmost of your ability.

Close physical proximity to other possums is rare in any case. After the frenetic activity of the nightly handout is over, the possums go their own separate ways, and except in the mating season the feed group activity occupies only a small percentage of the nightly routine. Weak mothers come, if they can, after the main group has departed, or at least wait until the others are fully occupied with their meals, to avoid conflict. If the situation gets too difficult, they stay away while the baby is tiny, just as you yourself would keep it inside for a while if things became too hairy.

For the baby to be known as an individual, and as a familiar local possum, it is not required that it should be thrust into the turmoil of the group activity. A youngster playing in a tree is as obvious to other possums as it could possibly be. The possum that you don't know is in a tree a hundred feet away knows you both very well, by sight and smell, as individuals. If it's interested, it can follow every move you both make. On the whole, it isn't very interested in the baby - that's just one of a number, more than it knows how to count, of local individual youngsters. It's generally more interested in you.

Territoriality All possums are territorial, but adult females are far more so than males, and for good reason.

Safe, comfortable nests where babies can be raised are much rarer than 'bachelor flats'. Once a female finds such a nest, generally speaking she will stay there for the rest of her life, unless forced to move: by being evicted by a stronger possum or humans; by the tree, shed, what-have-you falling down or starting to leak; by the disappearance of the food supply. Alternatively, the appearance of a new and better food supply (say, humans newly trained by possums to provide food on demand) may induce her to change her nest if there is a suitable one nearer to it vacant, or occupied by a weaker possum. But on the whole, once there, she stays there, rather than risk losing what she has.

She holds a territory around the nest, varying in size according to the circumstances - a few acres in the bush, depending on food supply, the presence of other possums, etc., but usually not much more than a normal night's journey for her. Some places are more especially hers than others, and there is a core territory in the immediate vicinity of the nest, but it isn't necessarily laid out by human geometry. The presence of Other Possums is tolerated less and less the closer (in terms of possum travel)they come to the nest; further away, except in places especially favoured by the proprietor, Other Possums may come and go in what are more or less common areas, though the ownership is still there in theory, and recognised when Madam chooses to assert herself.

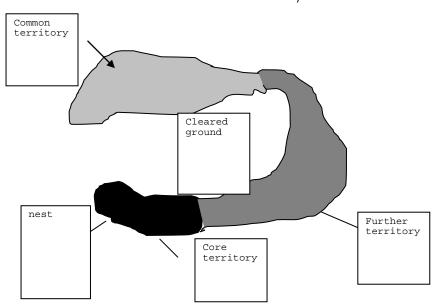


Fig. 1 a. Hypothetical territory based roughly on Bindi's, illustrating possum rather than human geometry. Common ground is closer to the nest by direct distance than the extreme part of the further territory, but at the furthest extremity of the possum's route.

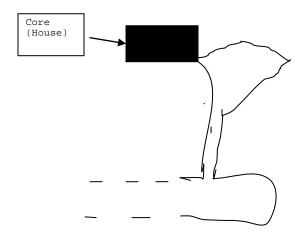


Fig. 1 b. Snoopy's first territory.

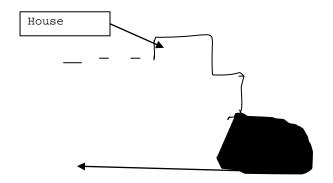


Fig. 1 c. Kylie's territory.

N.b. there is a third-dimensional element, which cannot be shown in a two-dimensional sketch; Kylie, for example, also owned the roof of the house at one stage, while Snoopy owned the interior.

Safe established routes within the territory are marked by scent trails, some common to a number of possums, others the trails of particular individuals who alone have business going a certain way to certain places. Trails are marked by excreting fluid from a gland in the rear, and also by a gland in the chest, which is rubbed on the object in question (hence the brown stripe down the chest). The latter method is used especially to mark actual possessions, say the particular tree where the nest is located. iii Possums tend to keep to these `railway lines' once they have been laid, since to diverge means risking uncharted dangers. For all reasons, a female possum will, if forced to change her nest, choose another within her own territory if she can. If physically removed from her territory, she will make every effort to come back. If more than one nest is available close by, she will sometimes sleep in others - probably because in bush conditions a nest which is rainproof from one wind direction is drenched from another. If she can afford it, she sometimes has a secondary main nest somewhere else in her territory, as well appointed as the first, near another desirable food source, and spends lengthy periods there. During the process of separation between mother and baby, it is fairly common to find the mother in one nest and the adolescent occupying another nearby. But there always seems to be one main nest, and that is the core of her emotional life.

Babies are born, and grow up, and become Other Possums, and, if female, sometimes eventually tolerated neighbours. If she loses a baby she looks for it, and grieves for it, too, but she soon has another one, which grows up and leaves in its turn. Some mothers still recognise juvenile daughters for a short period after they mature: others don't, and probably, from their own point of view, have only one baby, The Baby, who sometimes gets lost, but shows up again in their pouches some months later - and they are careful not to lose it again. Their affection for the baby is completely overriding as long as it is a baby, and their devotion total - I have seen mothers risk their lives to save their babies, drawing the attention of would-be predators on themselves. But babies come and go, and their memory for individuals is in any case short. Their memory for places is much longer, and the nest remains theirs `forever'.

territoriality less ferociously so. The normal male territory in bushier areas covers about three female territories, and so many night's journey, and he perambulates from one end to the other.

A male can camp almost anywhere, unlike a breeding female, though naturally he prefers better accommodation when he can get it, and usually there seems to be one main nest, in the territory of the female he can best beguile into tolerating his presence.

For preference, this is the largest, and fiercest, who therefore occupies the choicest territory nearest the best food. Consequently, you get a kind of very loose marriage - it is very much an arrangement of convenience. The male is in no way `faithful' to the female - his amorous attentions are, if anything, more likely to be directed towards smaller and weaker females who mete out less severe punishment - nor does she show any marked desire for his company. However, it is likely that an incoming resident male has mated with the dominant on his first arrival: it is at this time, when `critical distance' is broken down by the courtship ritual, that the newcomer has the best chance of installing himself. If he takes that opportunity, he can accustom her to his continued presence, and her `critical distance', for him, remains slightly less than it is for possums in general.

Because of this, and because his nest is near hers, the male tends to arrive at a house feed group in attendance upon the particular female near whom he resides. Once there, he pays no more attention to her than to any of the others, nor she to him. I do know of one instance, however, of an intelligent male exploiting the `critical distance' differential in the feed group situation.

Joe - there <u>is</u> some reason to think he was Joey grown up - was the current resident male at our house, and consequently Jenny's attendant. At one stage he suffered a fairly severe injury to his tail, and was being harassed by the other possums, particularly the males. Probably through trial and error at first, he developed the habit of taking his food and sitting near Jenny - at a respectful distance, beyond `critical distance' for him, but within her `critical distance' for possums in general. He was, therefore, in a kind of penumbra, protected by Jenny's invisible aegis.

Jenny may or may not in some way have accepted her protective role - at that stage she was somewhat confused as to which baby $\underline{wasn't}$ hers - and Joe could, after a time, approach her and steal some of her food, baby-fashion, with impunity.

While a particular male will make his main residence in the territory of a particular female, and regularly appears in her company, he also absents himself for a night, or several nights, quite frequently, presumably inspecting the further reaches of his territory. Other males living in adjacent female territories come to be fed at the same house, and in more built-up areas the male territories actually seem to overlap. Squabbles between males are frequent and noisy - the larger, stronger male, or alternatively the most intelligent, will hold the prime territory and seek to protect his privileges, while adjacent males from time to time covert them. But, while their battles are sometimes serious and bloody, they are not, on the whole, as serious as fights between females, again at least in the suburbs.

For given the circumstances, males quite simply cannot afford to be as intensely territorial as females.

The females generally occupy the area a possum would cover in a

c See below, pp.* 295 f.

night's journey.^d Males are promiscuous in the extreme, and so in order to have access to enough females, a male must at least establish his presence in the territory of several females, so ranging across a wider area, about as many nights' journey in length as there are female territories included.

There is simply no way he can police all his territory effectively: while he's down one end there is no way he can stop another male being down the other. There is no way he can fail to know about it, too, on his return: all possums leave scent trails, and of the two methods described, the scent left by the chest gland is more durable - in two separate cases I have known it to last up to six months; males, travelling further, need to take particular care about leaving a trail that they can follow back, and particular care that the traces they leave will last long enough to serve them on their return, and so chest-mark even more frequently than females. When a male returns to one extremity of his territory, his nose will tell him there has been an intruder. If he stays put for a while to protect that part of his territory, he's likely to find that the same thing has happened down the other end when he finally goes back. What's a bloke to do?

The difference in size between male and female territories means that he cannot afford to feel as possessive about his as she does about hers, and his emotional ties with his territory are consequently not as strong.

As a corollary to this, males change their territories quite frequently, usually in the mating season. Younger males generally seem to do so more often, becoming more settled as they grow older; the rare old males, like Erik at Ingleside and Old Pink Pig at Newport, may eventually find a permanent residence.

Changeovers are usually marked by fights, but I have known a couple of fairly amicable ones in the built-up areas - after all, there are plenty more females and food-stops and sleeping places just down the road, so if the other fellow really <u>wants</u> this particular place it's easier to let him have it. In less built-up areas such as Ingleside, where there is a wider discrepancy between the haves and the have-nots in terms of handouts, the competition seems more genuine and fierce, though even so I have known a bloodless settlement.

The reason for moving, I would hypothesize, is as much a matter of the carrot as the stick - once all the available females have been attended to, or shown themselves impervious to all forms of beguilement, there is likely to be, just now and all of a sudden, a lady over the hill whose scent is absolutely irresistible. Mostly the carrot and stick combine, particularly in the case of a juvenile in his first season: with serious beatings from the older males to make his present abode seem less desirable, and the lure of the lady over the hill, the time comes when he just, quite simply, goes.

Female The upshot of all this - the necessity for a female to protect dominance and keep one of the rare nests suitable for raising babies, in contrast to the facility with which a male can and does change his territory - is that, as a general rule, a male gives way to a female.

Her attack is more serious, and far more strongly motivated than that of a male. The pattern is reinforced by the difference in physical size: generally speaking, females are larger than males, as well as more

d A resident possum, that is, moving about its business at a leisurely pace; one travelling with intent, say, trying to get home, can cover incredible distances by comparison in a very short time - eight kilometres a night in the right sort of country is definitely `on'.

aggressive.

The males, as travellers, are more prone to meet with accidents - about four out of five of those killed on the roads are males, usually youngish - while the females, who remain in the same place, where the hazards are known and charted, often live to attain their full potential size. But beyond this females seem to be naturally larger, though the disparity is sometimes eliminated by the fact that the average size of possums varies from group to group.

The situation is not dissimilar to that with humans, inverted, where men are, generally speaking, larger than women, but the average size of different races varies so greatly that women from a large race are generally bigger than men from a small one. For example, Old Pink Pig, sometime the largest of the males at Newport (who planted himself beside my typewriter as I originally wrote this), was smaller than all the adult females in Jenny's family, and in the other groups of average stature, but marginally larger than the biggest member of the Foxy group, small reddish possums, originally quite distinct from the others, who live in a particular area around the creek.

seen even in Whatever its origins, this behaviour pattern is now innate, and play-patterns shows up even in their baby play.

Joey, the little male, would have play fights with discarded clothes, cushions, pillows, my hand, or nothing at all. He made ferocious attacks (though usually gentle in the case of my hand, unless it was concealed by a cloth), characterised by thoroughly unnecessary and completely exaggerated movements, enormous pounces, up on his back legs, or up in the air, then <u>down</u>, collaring the objective with his hands - a kid, over-acting. He punctuated his attacks by suddenly leaping into the air, landing flat on his back, and lying there, supine, stiff, paws outstretched and partially in the air, eyes closed, obviously a dead possum.

Even in my ignorance, it was obvious to me that he was acting out losing battles. I didn't know at the time how accurate his imitations were: a possum losing a serious fight is often thrown forty feet or more to the ground, where it lies stiff on its back, apparently in a catatonic state of shock. Occasionally it screams, usually it appears to be dead, with rigor mortis set in. It stays like that for minutes or hours as the case may be - then it gets up and removes itself with as much dignity and appearance of normality as its injuries permit. This may be a reflex to protect the possum from predators while it recovers. If so, it's a sadly misplaced one in areas such as Ingleside, where people continually dump unwanted dogs: the pitiful spectres who prowl around there at night, ribcage displayed in all its details, stomach hard against their backbones or swollen with malnutrition, are carrion eaters.

At the time, Joey's game just looked to me like the game of Cowboys and Indians I used to play as a child. At intervals, you're killed or seriously wounded, and you lie down and count to ten or whatever, until you're allowed to recover, or be resurrected, or reincarnated as another Indian. There still might be a connection. e

But I began to feel very sorry for Joey. As time went on he played his game more frequently, always with the same result, although as he grew wiser he mitigated his `sufferings' by making sure he `died' within arm's reach of me, and so got his tummy rubbed until the time came for him

e That is to say, a connection which goes the other way: the human play pattern might conceivably date back to a time when such behaviour was indeed pro-survival. The resurrection/reincarnation and so forth would then be superimposed rationalization.

to revive. But he also had a record of unintentional defeats in his play. An attack on a pillow, toy dog, or discarded clothes always seemed to result in the enemy falling off the chair or bed on top of him, temporarily flattening him. He bears the distinction of having been defeated by a sock, and by his own tail.

The last occurred during a nightmare, when he was curled up in a circle on the bed, with his tail over his nose to seal the gap. In his dream, it somehow became a boa-constrictor. He hissed and struggled and fought, but the automatic reflex of a frightened possum which cannot escape is to cling, and the more he struggled the tighter the tail became. The combatants were separated only when he fell off the bed - a low divan. I'm very much afraid that I was laughing, and he stalked off under the bed with his dignity very much ruffled.

By the time he developed his game to the point of sophistication where he landed beside me, he was in fact being chucked twenty feet or so out of trees by adults whenever he encroached on their personal preserves (though I never saw him more than momentarily stunned, and certainly not in the supine position which characterised his play). It seemed a bit much that Joey should always lose, in his dreams, in real life, and in his games.

The next time I was appointed the enemy, I duly played dead.

Joey was horrified, and extremely upset for some time. It was not because he thought I really was dead, as he did on another, later occasion when he came back one night and couldn't wake me; his reaction then was quite different, nosing me and licking me frantically to rouse me. It was because I had obviously done the wrong thing, and committed the possum faux pas of all time.

Joey never included `playing dead' in any of his games outside, though some of the other elements, including the enormous pounces, were present. It just isn't safe for a baby possum to `play dead' unnecessarily in the open.

I have, however, heard of another house-reared male who invented the same game for himself. I can only suppose that little males reared by their own mothers might play a very much less developed version of the same game in their nests - the restrictions imposed by lack of space would preclude, for example, the wild leaps.

The sound effects from the nests of what later prove to be male babies suggest as much, but the game as a whole would be very difficult to confirm in such circumstances, because the characteristic supine position is identical to that assumed by a possum sleeping in its favourite nest, in total security - the exposure of the vulnerable underside demands no less. The facility for stretching out full length like that is the height of possum luxury - they snuggle occasionally, and give little sighs of contentment, and dream dreams characterized by the little lip-smacking noises of a possum savouring food which is Absolutely Delicious. Most adults rarely have nests that provide space for this, and at the same time security - hence, in part, the predilection for roofs. A baby can, and very often does, stretch out on its back, sleeping happily beside its very own mother.

And the only difference between this position and the supine `dead possum' position is that in one case the muscles are stiff, in the other they couldn't be more relaxed - when Joey and Snoopy slept in that position I could, if I wanted to, move them around like a rag doll.

Snoopy, the little female, was a totally different case.

Virtually the first thing she did, when she could spare the energy from just breathing, was to attack the toggle of my duffle coat - no pseudo-suckling about it - and she proceeded from there, as she grew

stronger. She showed no signs of hostility towards me - like Joey, she was loving, gentle, obedient and pathetically loyal - but she belaboured her mock enemies unmercifully. But there was no apparent scenario in her war games, as there was in one of her other games, though it was clear from her actions that, like Joey, she was fantasizing. Both would work themselves into a frenzy, but Snoopy simply attacked her opponents until she grew tired of it.

Kylie, her daughter, was just the same, and I have seen another baby female playing the non-house version of the same game: lacking a convenient sock or cushion, she chose as her opponent a bunch of leaves.

The general behaviour of babies who come on their mothers' backs to be fed seems to point in the same direction. On the whole the little boys are shyer, more timid, trying to hide in their mother's fur, clinging to her, staying close beside her when they are older - which is why you inevitably fall for a boy, who will almost certainly leave home when he matures.

Both my little possums had nightmares, hissing and crying and struggling in their sleep, being chased and beaten up, no doubt by something fierce and hairy and trichosurine the size of an elephant. But in their waking fantasies, Joey never won a fight and Snoopy never lost one. Joey was preparing for his adolescence.

An adolescent male is the lowest form of possum life: everyone outranks him and can chase him away, and he can chase no one - the adult females because they are females, the adult males because they are bigger, and even the babies, because they still have the protection of their mothers. His only solace is to find an even smaller, more wretched adolescent male, or take it out on a fetish.

Although the basic pattern of female dominance is innate - neither of the babies had seen enough of other possums for it to be anything else - it essentially rests on the greater determination and physical size of the females. On at least two occasions I've known an exceptionally large and intelligent male to arrive in a new group, at first behave as befits a gentleman possum, then gradually come to an astonishing realization. There are smaller, easily frightened female possums in the world, and he is bigger than they are. He then proceeds to give them hell, as if to make up for all the injuries of the past. But when, as eventually happens, the female in sheer desperation finally starts to make determined attacks, he generally backs down, as the law dictates.

Social Order As far as I can tell, in areas like Ingleside where there is plenty of vegetation, social order is more a matter of equal female neighbours, each of whom is boss in her own territory. The basic social unit is one female possum, plus dependant offspring, with a male ranging over the territories of three or more females.

However, the feed group situation, with possums from the surrounding district collecting in the same place, each as an individual, for the sake of the food (and certainly not for love of other possums), a situation more familiar to most people as the suburban hand-out session, does and must occur in nature.

Seasonal vegetation, of the sort which grows, as it often does, in limited areas, means that all the possums from the surrounding territories will have to congregate if they want a share of the spoils. And, possums being what they are, this means conflict and confrontation.

Their huge, non-retractable claws look terrible, and their teeth, which are not laniary but resemble (roughly) those of a rabbit, look comical and innocuous, and so it is commonly believed that their claws are their main weapons. Almost the reverse is true: the claws are used in

semi-ritualized boxing matches, between social equals, in a courting situation, or perhaps as an opening ploy, but when the fight becomes serious, possums $\underline{\text{bite}}$: the claws are used only as an extension of the hands, to hold the victim while it is being bitten, with perhaps a little scrabbling with the hind feet thrown in for good measure. Social inferiors (including non-possums such as humans) are bitten on principle if stupid enough to provoke a superior. $^{\text{f}}$

Possums are physically designed to withstand such treatment, armoured against the weapons of their fellows. The prime target is always a retreating rump, and in a healthy possum it is always very well padded; the bones of babies seem to be made of rubber, and those of adults are extremely resilient, so that being pitched twenty feet or so out of a tree results in no more than a shaking; the fur is very loose, and comes out in quantity at the slightest provocation, so that both biting and clawing often produce no more than a handful, or mouthful, of fur. After what looks and sounds like a fight to the death, you often find what looks horrifyingly like a bale of wool strewn on the ground - and two completely unscathed possums.

The fact that they are built to withstand precisely the sort of treatment meted out by Other Possums suggests that this is the sort of punishment they most frequently receive, and so again, like the occurrence of patches of seasonal vegetation, points to the conclusion that in nature as well as in the suburbs, the feed group situation, with possums assembling, each individually there for the same purpose, is not uncommon.

When such a situation occurs, then one possum dominates the others - the senior female, the largest and strongest in the area, who therefore in theory tends to own the territory in which the desired delicacy grows.

But in areas such as Ingleside, where there is plenty of space and no tendency to overpopulation, actual confrontations of the sort that would define dominance are rare.

For possums are, paradoxically, peaceful animals - always excepting the mating season. Their basic antipathy towards other possums is probably an evolutionary device to spread them as widely as the food supply allows. In conditions such as these it is often relatively easy to avoid conflict, simply by avoiding other possums. Given their ability to sit absolutely still for hours, it is easier to sit and wait until the owner of the desired vegetation has had her fill and departed for the night, or made it clear by settling down to eat somewhere else that she doesn't particularly fancy it tonight, than it is to provoke confrontation.

Since the existence of dominance depends, to a certain extent, on its frequent assertion and concomitant recognition by the subordinates, no rigid ranking system, with the owner of one territory invariably outranking the owner of the adjacent one, seems to develop in such lightly populated areas.

Evolution In more built-up areas, however, the food supply, both the in action: vegetation and that provided intentionally or otherwise by man, is a concentrated into smaller patches. Similarly, the availability of nests developing is restricted, and several possums often occupy different parts of peck-order the same shed or roof. Consequently more frequent contact, and so conflict, with other possums is inevitable, and it is necessary for them to

f People often complain that they picked up a possum and it attacked them, scratching them to pieces. It is probably little consolation to know that it did not attack, or they would have been <u>bitten</u>. It cannot retract its claws like a cat, and so accidentally scratched them in its struggles to get away. Without the protection of a possum's thick coat, the result is much the same as if it had attacked.

find a means of coming to terms with each other's proximity on fairly frequent occasions.

Those at Newport have done so by developing or modifying those aspects of their behaviour applicable to such situations when they do occur in more bushy areas. Firstly they have evolved, and, I suspect, are still evolving, a rudimentary peck-order.

For years Jenny was the reigning dominant. Once you know the group as individuals, there can be no doubt as to the identity of the dominant. All the other possums give way to her, fleeing before her after only the most token defiance, if that. In those groups I have watched, the dominant is the senior female, the largest and strongest, who owns the territory in which the desired food - in this case handouts provided by humans - is located.

Her arrival at night is marked by consternation on all sides - possums flee in all directions. You can tell that it is her coming, long before you see her, from the effect of her approach upon the others. her bearing is regal - quite literally, she owns all she surveys. She may, as a matter of principle, demonstrate her authority by chasing off the nearest possum - usually without physical contact, since the lesser mortal just goes.

Once her authority has established, matters are conducted more amicably. She becomes a benevolent tyrant, who graciously permits the others to sit at a respectful distance and feed unmolested. She asserts her authority only when necessary - a younger possum getting uppity. The others are less disturbed by her arrival, and in time, her appearance in her favourite spot just comes to mean that everything is normal, and all is well in the world.

The system is as yet rudimentary. It is only a short step from the temporary, de facto dominant of the bush feed-group situation to the permanent dominant recognised in virtually all contexts, in a situation where the concentration of food and suitable residences in a restricted area means that there are Other Possums, male and female, more or less permanently in what she considers to be her territory - a kind of perpetual feed-group situation.

The dominant, for example, makes no attempt to interfere in the squabbles between the others, unless their gyrations accidentally bring them close to her. Group activity still occupies only a minor part of the nightly routine, and it remains, essentially, an *ad hoc* arrangement arrived at by individual possums in particular circumstances.

From what I have seen, I would expect other groups to vary from those from which I derive my information. My observations are based primarily on four groups: at Newport, the contiguous and partially overlapping groups, Mrs. Poss's, Jenny's and Foxy's - Mrs. Poss's group was originally quite distinct, but those of Foxy and Jenny overlapped, because feeding took place on - ? established ? - the boundary between the two main female; at Ingleside, Snoopy's (or rather Kylie's) group, plus occasional encounters with the next group down the creek and a couple of neighbouring groups. It is impossible to overstress the fact that possums are thinking individuals, and as such adapt to the conditions in which they find themselves, each in his or her own way.

In all the above mentioned cases, for example, the dominant is a senior female, and I would expect this to be the general rule because it makes sense. While the deep rumbling calls at possum bed-time which we first fondly imagined to be those of a big old-man possum challenging the world may in fact be just that, it more often turns out to be the lady of the area crying her territory. But, given the right physical circumstances,

for example a very large old male as an established, honoured guest in a shed near the feed house, and only small weak juvenile females in the neighbourhood, I could well envisage at least a temporary situation where the dominant is a male, though I've never actually encountered it.

At first there seemed to be no internal peck-order at Newport or any of the other groups I have seen, beyond the principle that males give way to females, and small possums give way to larger possums. If there was, it was too ephemeral for me to detect. For even those principles can be varied with circumstances - for example a small female, closer to her nest, can outface a larger one, even the dominant, if the latter doesn't seriously covet the nest herself. Matters vary with the situation, with the individual possums involved, and, above all, with their mood.

However, in later years, changing conditions at Newport made the population crisis more severe, and so increased the pressure to develop regular solutions to the problem of co-existing with Other Possums.

More of the surrounding blocks were cleared, reducing still further the available food and shelter, concentrating it even more. Possums must go where there is food and shelter for them, so the possums in turn were concentrated more densely, on our land. The three originally separate groups interbred and partially merged, the distinction between them no longer capable of definition. The males migrated less readily: while the juvenile males still departed, one, Elephant, almost certainly went no further than the next group up the hill, while another, the singularly illnamed Blanche, may simply have changed from the Foxy group on one boundary of our property to the area which used to be occupied by Mrs. Poss's on the other. The older males tended to remain where they were.

By 1978 there were at least four males permanently living in, or frequently visiting, an area of two hectares. Big Pink Pig, or Old Pig, who took over from Joe as resident male, remained, with two younger semiregulars, `Horrible' (almost certainly the same Horrible who first showed up at the same time as Old Pig, of whom more later) and a slightly younger adult male, Shy Boy. And, in addition, there was now, finally, the exception to prove the rule, Timmy, already notorious for being a July (1976) baby, the juvenile male who didn't depart. (Or rather, he departed for a whole two weeks, then returned, still carrying the same minor injuries and scars, with no doubt at all as to his identity.)

Timmy seemed to be doing a kind of Castor and Pollux with Pig: while I never established Pig's exact range, since it took him off our property, I knew the direction in which he went, and Timmy followed the same route, except that, accidents aside, where Pig was at a given time, Timmy wasn't; Pig seldom if ever slept at our house; Timmy did so intermittently, but was there more frequently than he was absent.

These four developed a well-defined peck-order, or, more accurately, chase-order, of their own, ranking primarily according to size and seniority. Pig, obviously the oldest and largest, clearly outranked the other three. Then came `Horrible', then Shy Boy, not much younger or smaller, but of an even more timorous nature: `Horrible' alternated between extreme timidity and extreme temerity, from one to the other within a matter of minutes; Shy Boy had panphobia virtually all the time. Then, lowest of the low, was Timmy.

Timmy's position in regard to `Horrible' and Shy Boy did, however, become more fluid. While Shy Boy was older, he derived his name from his nature, whereas Timmy was a singularly brash and bumptious young man. Given the changing conditions, the pattern of juvenile male departure was bound to be broken sooner or later, and he was certainly always the most likely candidate.

One evening, first Timmy, then Shy Boy, came to my window for bread. When Shy Boy first approached, Timmy dropped the half-eaten slice of bread he was holding and snatched up a full slice, preparatory to retreating with what he could carry - the only time, incidentally, I've ever seen a possum have the nous to exchange a partially eaten slice for a full one under such circumstance. In the event, he retreated only as far as the next window. When both he and Shy Boy had finished eating, Shy Boy turned to leave. Timmy capitalised on the situation by starting after him, hesitantly at first, then more purposefully, and Shy Boy duly considered himself chased and increased his pace to a run.

The following night there was a similar confrontation between Timmy and `Horrible'. This time Timmy arrived when `Horrible' was already eating, and showed signs of aggression. `Horrible' hesitated, but apparently decided not to exchange his mouthful of bread for a doubtful mouthful of Timmy, and made a fairly leisurely departure.

Personality, as well as physical size, plays a part in the acquisition of rank, and Timmy's intelligence and natural pugnacity $^{\rm v}$ were on the verge of making up for what he lacked in bulk and experience, where Shy Boy and `Horrible' were concerned.

Not Seeing There are a great many individual, specific ways by which

possums circumvent their own behaviour patterns when to follow them ceases to be beneficial, but there are also some standard tricks. The most important of these is Not Seeing.

This is a rather more positive action than simply ignoring. vi

I have seen a similar type of behaviour in two male dogs, who for years threatened each other almost daily through a barrier - `If only I could get at you, I'd tear you to pieces' - all the while secure in the knowledge that the barrier prevented them from ever having to make good their claims.

 $\,$ Then one day the barrier was accidentally, and suddenly, removed, to the great consternation of both parties.

They were approximately equal in size and fighting capability - whichever one actually won, there would be damage on both sides. While it was one thing to threaten mayhem from safety, neither in fact wanted to risk real injury.

They resolved the problem by pretending very hard that it didn't exist. Somehow neither dog could see the other. The dog who found himself in the other's territory trotted slowly through with his head turned away from his inveterate enemy, avoiding, by his deliberate gait, any appearance of flight which might provoke an attack; the territory owner, in turn, concentrated very hard on imaginary somethings elsewhere, everywhere else, anywhere but where the intruder was.

As soon as the barrier was replaced, the situation reverted to normal, and unpleasantries were exchanged with all the usual ferocity.

In possums, male and female, Not Seeing becomes a fine art. If, for reasons of prudence, convenience, or occasionally something like mercy for a juvenile that poses no serious threat, a possum does not wish to fight another, it is faced with a quandary. The rule dictates that Another Possum must be attacked and chased away.

But if it doesn't know there is Another Possum there, then it is not obliged to do anything. It therefore faces firmly in the opposite direction from the offending presence, making slow ritualized movements to be sure the Other Possum sees them — otherwise the turning of the head might be taken as the beginning of flight, or the Other Possum might think it has really not been spotted, and in either case launch an attack. No power on earth will persuade the first possum to look at the 'invisible' one, unless

the Other Possum upsets the *status quo* by approaching. The non-existent one may stay where it is - in which case Not Seeing can last for as many hours as necessary - or drift away into a less hazardous location. Where both possums have reason to be in the same place, Not Seeing can be mutual, and continue for a very long time.

It is, in fact, a method of communication: it tells the other possum that, provided it observes etiquette, it will be favoured with no unwelcome attentions.

Not Seeing to this degree is an adult art. The babies almost always genuinely ignore each other. In my ignorance, on several occasions I placed one youngster in the same tree as another when the stranger's mother was occupied elsewhere. The two youngsters took no notice of each other whatsoever. Each happily played its own private game which it had developed for that particular tree.

Just as two adult possums feeding in the same vicinity are two adult possums each independently there for the same reason, the food, so two baby possums playing in the same tree are two baby possums each independently playing with the tree. They do not play with each other.

They seem, for the most part, genuinely unaware of each other's presence: like puppies or kittens separated from their kind, they are, for the most part, wrapped up in their own fantasy world. They will play with their mother, if she can spare the time and has the inclination, but there is no real group activity voluntarily indulged in even by babies.

Possums also possess a basic tact, which, coupled with a firm knowledge of each other's behavioural patterns, comes to their rescue in awkward situations for which there is no regular solution.

The best illustration I can think of occurred in the mating season after Joey disappeared.

Just as possums congregate in feed groups when the desired food is in limited supply, each possum there independently for its own purposes, so too they congregate in the mating season. We called such gatherings, for want of a better term, `conventions'.

On this occasion the convention took place over the hill from us, at another house where a group was fed regularly. I was there looking for Joey: mating conventions are larger than normal feed groups, with members of surrounding groups combining, and some of our regulars had joined this one.

I saw a male courting a female - the egregious Jenny. He had her trapped on the end of a branch, and matters were proceeding as per usual - he making wheedling, cajoling advances, she repelling him with roars and handful of claws in the face; whereupon he would retire to the other end of the branch, and, after a pause, try again. Matters, so far as I could judge, were just about coming to a head.

There was a tall, straight sapling adjacent to the branch, a couple of feet from Jenny's end, and, as the would-be Romeo made another of his advances towards her, a second male suddenly shot up the sapling, between them.

Had they been anything but possums, it would have been Sir Galahad to the rescue of a lady receiving unwanted attentions. But possums they were, and what had obviously happened was that the second male, in his eagerness, had failed to notice that Jenny already had a suitor and catapulted himself into an impossible situation.

Even at that stage I knew that they were too close together. If either male turned to go, he would be attacked - a retreating rump at that distance just had to be bitten. And Jenny herself had nowhere to go.

After a face-to-face confrontation a few inches apart, Not

Seeing was out of the question - in any case, even the turning of the head required for Not Seeing might, when they were so close together, be interpreted as a sign of flight, and so provoke an attack.

They all froze, staring at each other. Nothing could happen but bloody massacre. The tableau remained motionless and the minutes ticked by. The tension mounted.

 $$\operatorname{\textsc{Then}}$, at last - all three simultaneously decided that it was time for lunch.$

They browsed for a few minutes, with the mood relaxed, then the interloper just sort of drifted away. And Jenny and the first male took up where they had left off.

Behaviour Established neighbours do in fact develop a great deal of towards tolerance for each other. Once each has established its presence and known favourite position, its critical distance and general personality becomes neighbours known to all the others. Fights are less frequent, because everyone knows how to avoid them, and, when they occur, tend to be ritualized.

Possums move with lightening speed when they are serious, but these ritualized combats are, by comparison, virtually in slow motion, and the key gestures, actions and body positions are deliberate and exaggerated. Each possum is given every opportunity to know what the other is doing, and what it intends to do, and respond according to etiquette. The risk of serious injury to either party is therefore reduced.

If one of the permanent females disappears, her presence is missed by the others, in the same sort of way they might miss a tree that falls down. They live in a world where survival is achieved only by a narrow margin - straying from a scent trail can mean being taken by a predator and so forth - so they are very much creatures of habit, and any major change is disconcerting until it is shown to be harmless.⁹

Behaviour There is a very marked difference between their attitude to towards known neighbours and their attitude to strangers, particularly females. strangers Again the best illustration I can think of is an incident involving Jenny, the reigning dominant at Newport, then in her prime, Foxy, a female neighbour of a couple of years' standing, and Sally, a stranger.

At the time the groups which lived on, or overlapped with, our property were physically quite distinctive, each with unmistakable family traits.

Jenny's group, centred on our house, were true silver greys, dark grey fur with silver tips, medium to large sized possums with extra long ears, medium to long snouts, narrowish faces and dainty features - all very pretty possums, far more like miniature wallabies than the rather broad, blunt-featured pop-eyed possums who appear as typical examples in illustrations.

Foxy and her descendants, who centred around the creek and lived in that region and on the property adjacent to ours on that side, were also very pretty possums, but smaller, with a pronounced russet tone in the colouring of males and females alike, short-eared, and with tiny triangular faces, shorter in the snout than the Jenny-possums, with sharp little features.

g. By the same token, and for the same reason, they are also exceedingly curious - they occupy the same ecological niche as monkeys, and in this respect resemble them; or, say, a kitten with hands. Nothing delights them more than exploring something new and pleasurable, once they know it to be harmless.

Jenny, too, had a distinctive face mark, a chevron over the nose, with a dark line from its apex running up the middle of her snout between her eyes, and she passed it on in one form or another to most of her descendants. Foxy's face-markings were different, and although the Jenny-mark soon appeared among her descendants, and I've since seen it elsewhere in apparently unrelated groups, at the time, and in that place, it was a dead giveaway.

At one point I wondered whether I hadn't got my labels mixed up - Jenny's people are certainly trichosurus vulpecula vulpecula (Hairy one, little fox, little fox), but Foxy's matched very closely descriptions of Trichosurus caninus. However, I found on enquiry that the two sorts of brush-tails aren't supposed to be able to interbreed, and interbreed they certainly did, under the ministrations of Joe, who, whether Joey or not, was certainly a Jenny-poss.

Sally was quite different again, and different, too, from the other major group which straddled the fence-line on the opposite side of the property from Foxy, Mrs. Poss's stubby, ursine family. I encountered her for the first time prior to the incident in question in a group of palms about a hundred feet from the house, up the creek from Foxy's group.

She was reclining on her back in a multi-coloured lantana bush, her great flat feet stuck up in the air, wading into the lantana with great gusto and lip-smacking approval. She was long and lanky, grey like Jenny's mob, but slightly lighter in colour. She had a very long, flat, unattractive-looking snout, with face-markings so light as to be virtually invisible, doing nothing to mitigate the unfortunate shape of her face. She was awkward and ugly and completely engaging. A possum ingénue.

The place she frequented was a kind of no-man's land, on the boundary of several feed-groups, and I occasionally saw possums from Jenny's, Foxy's or Mrs. Poss's groups browsing there, particularly when the palms were in flower. Sally was a peripheral member of a group from an adjacent property, further up the hill - I met her kindred on occasions further in that direction. She was never one of my regulars, although I gave her a handout if I happened to walk there, and she was present and asked for it. Possibly, given her location, she wasn't a regular member of the far group either, and that was why she decided to try her luck with my lot.

At this time, handouts were given at a group of trees which seemed to overlap the boundary between Jenny's and Foxy's domains. Foxy and her assorted babies, half-grown offspring and mature daughters on the whole, at that period, stayed in the trees within this copse which were further from the house, Jenny and her people the reverse, though there was a large cedar wattle nearby which was a seasonal attraction and used, with discretion, by all possums. Foxy herself made only occasional expeditions into the area immediately surrounding the house - when, for example, she came too late for her handout and had to draw our attention to herself to get it.

On this particular occasion, however, when the handouts had been eaten and they had all settled down, as they usually do, to browsing in the trees in which they were sitting before going off for the night on their individual business, Foxy encroached on Jenny's preserve by a few trees.

A leisurely chase ensued. Jenny chased Foxy in a bored, perfunctory, and thoroughly ritualized manner. It was, for a possum, slow motion. Jenny made no serious attempt to catch up with Foxy, and Foxy made no serious attempt to get away. The distance between them remained the same, and they described a slow near-circle, at the end of which Foxy was back across the invisible border, in one of her customary trees, and Jenny

was on the other side of it, a respectable distance of a couple of trees away, in hers. Both settled down to eat again.

About ten minutes later, the real stranger, Sally, appeared in Jenny's zone. Jenny flew at her, and Sally fled for dear life into the night.

Foxy and Jenny knew each other, and accepted each other, provided etiquette was observed. Each had her own nests, and neither posed a threat to the other - Foxy never slept at the house, and seldom came near it. Each had sufficient natural food at her command, and each knew that if she cared to present herself at handout time I'd make sure she got her fair share. There was no real competition between them.

Sally was a different matter altogether. She was a possum whom they must have seen around occasionally, but essentially an outsider, and as such represented a potential danger to nests and food supply. She never repeated the experiment, but found herself a small between-territories niche up the creek from Foxy, not far from the palms where I first met her.

A strange male is a different proposition. Arriving and departing males are a frequent phenomenon of possum life, and a new face, or, more importantly, a new smell, comes as no real surprise.

If there's a larger, established male, there's bound to be trouble, and no doubt the ladies of the district will handle him severely at first. But, particularly if the erstwhile resident male has already departed of his own accord, he has a reasonable chance of staying on, always provided he conducts himself according to etiquette.

Mating

Given their violent antipathy to each other, mating presents a problem. It is achieved, on the whole, bloodily.

The standard practice is for the male to approach the female, making soft cajoling noises which are a variant of the basic kook-kook call, extending his nose towards her, hopefully. She repels him with great vigour, and a handful of claws, roaring and hissing, removing as much of his facial fur as possible. He retreats, then comes back for a repetition.

She, in turn, starts to get tired of these unwanted attentions after a while, and leaves if she can. He follows her, if possible trapping her at the end of a branch or in some such situation, and resumes his entreaties with ever-hopeful nose stuck out towards her. If she becomes furious enough, she makes a determined attack, and chases him far enough to let her escape from the branch. He just follows her and renews his attentions.

Mating involves the temporary abrogation of one of the most fundamental possum laws of all, that no other adult possum shall be allowed within `critical distance', and above all that no physical contact with Another Possum is permitted. It is characterized by retreats and advances on both sides, and takes a good deal of time - several nights -, and space - a courting couple gradually progresses from tree to tree. When daylight forces them to take shelter, the female returns to her nest, and the male to his. They meet again the following night, and take up from where they left off.

Gradually the male's persistence wears her down. She lets him come closer and closer, and her attacks, though still furious, gradually abate as her own instinct becomes roused. The performance still looks like a fight to an inexperienced eye, and it certainly sounds like one, but the aggressive gestures gradually become more ritualized, until, eventually, they become, quite literally, love-pats. And, once you've heard it often enough, you can tell that the lady who is still saying, `No,' isn't quite so adamant any more, and she will eventually say, `Yes'.

In the end, either she does, and he mounts her, or, if the male

is impatient and the female small and weak, he is close enough to just jump her anyway, `rape' $^{\mathrm{vii}}$ her, in fact. Young, inexperienced males, adolescents at the peak of their sexual excitability, are more prone to do so than older males, who observe the rules and patiently endure the punishment meted out to them.

The process is very hard on the males, and many of them are unrecognisable from face-markings alone by the end of the season. How little facial fur a male has left is something of a guide to his proclivities, if not his prowess.

Occasionally a pair of possums do fall in love, and they are lovely to watch. Usually it's two young possums, both about the same age, possibly because they still retain memories of the tender relationship between mother and baby. They pet each other gently, and play together, and stay in each other's company for a couple of nights. As far as I know, they don't, however, sleep together during the day.

On the whole, the males come to the females, but where necessary the females travel short distances to find the males. Neighbouring groups combine at one of the feed spots, usually where there is favoured seasonal vegetation.

As I said, the process of mating itself involves the abrogation of what, at other times, is a basic possum law, and the concentration of possums in one place means an increase in tension and friction - `critical distance' cannot help but be infringed, and frequently, by comparative strangers. The result is chaos.

Tempers fray, and serious fights erupt in all directions. There are possums everywhere.

Weaker possums are driven away, usually the juveniles who came out of the pouch the previous season. In the preceding weeks, as they mature, they will have lost the protection of their mothers and the tolerance of the other adults: they will have started to look more and more like Another Possum, and thus been attracting more and more hostile attention. Now, bewildered by the totally unprecedented situation, with strange, hostile teeth wherever they turn, their first reaction is to get away to somewhere quiet - if they can.

Young females are frequently terrified by the hurly-burly. The basic rules, that a possum must never allow Another Possum within `critical distance' and that males give way to females, are innate, as is the mating instinct, but the courtship process is not necessarily so. Some young females - and I don't necessarily mean hand-reared ones - simply don't understand what's going on at first. They behave as usual, but the males, instead of retreating as they should, simply keep coming closer and closer, and trap them in places from which they cannot extricate themselves. As small females they are the most frequent targets for `rape' by the larger males, so there is not enough time for their own sexual instinct to be fully aroused: after it's over they run as far and as fast as they can. Males, attracted by first one, then another, irresistible scent, appear and disappear all over the place.

Possums are on the move in all directions, showing up in places where they've never been seen before, appearing in broad daylight, and, more tragically, dead on the roads. A panic-stricken possum, trying to reach safety, will run unthinkingly across an open space it would otherwise never dare to cross. Possums are nocturnal, and sudden headlights blind them and make them terrified and disorientated. Their natural reaction is to freeze, or at least run blindly, and simply tooting the horn at them, without slowing down, is only going to make matters worse.

There are two mating seasons, spring, and the major one in

autumn. One doesn't have to know anything about possums to know when they occur in any given locality. You can always tell by the road kills.

For an individual female, the operative part of the mating season lasts until she has successfully mated, or is no longer on heat - ovulation seems to be possible throughout the year, and out-of-season babies are occasionally born, but motivation reaches a peak in spring and especially in autumn. Either way, an individual female mating, from the beginning of the courtship to consummation, lasts about three to five days, a week at most. Whereupon all she wants to do is get back and secure her nest, and recover from the chaos.

The males, however, are not so regular in their desires - they will make unseasonable approaches at any time of year, on the off chance, though outside the mating season they will accept a rebuff as final. In the mating season, they mate with as many females as possible, as quickly as possible. When one mating is over, and the female returns to her nest, the male simply starts all over again with the nearest available female he hasn't successfully courted. In a given location, therefore, the mating season lasts until every male in the vicinity is convinced that every female within reach means what she says, and is once more unapproachable. Which takes weeks.

He then, depending on his own enthusiasm, either tries his luck further afield, or, if it is late in the season, settles down where he is, if he can. And his other great interest in life once more becomes important – food, particularly the luxury tit-bits provided by humans, and how to get it. And fun – a lot of male possums retain their childhood interest in exploring for its own sake and climbing acrobatically, and the typical suburbanite male is only too delighted to have a human audience, particularly a paying one, to admire him and provide him with diversion in turn. People watch possums, but possums also watch people.

Mother and Baby There is only one inter-possum relationship which lasts more than a few days, and is tender and affectionate: that between mother and baby. There couldn't be a greater antithesis to the rest of their behaviour towards each other.

It's as if all their aggressiveness and ferocity is channelled outwards towards the rest of the possum world, and all their gentleness (except that reserved for trusted humans) inwards towards each other. The baby is fed and washed and cuddled and petted by its mother; it responds with every possible sign of affection and trust and loyalty, snuggling up to her, licking her, watching her with adoring eyes, shooting questioning looks towards her whenever it finds something new - Is it safe? Is it good?

The first one usually sees of the baby in a house-group situation is when the mother brings it on her back, although it has actually been sleeping out of the pouch, cuddled up beside her in the nest, for three or four weeks prior to its first public appearance. It will, however, have appeared publicly in part during this period: as the mother sits eating her food and relaxes, her pouch muscles slacken and the pouch gapes a little - the baby is almost too big for it anyway - and there is forever a disembodied leg or tail or ear left outside. A possum who knows you very well may let you take a quick look at the baby in the pouch at this stage, once it is properly furred and well developed - but please be careful not to shine light into the baby's eyes, since they are very sensitive when they first develop: apparently the baby lacks the muscular co-ordination needed to contract the pupil to compensate. Even at this stage, however, the mother can close her pouch very tightly if danger threatens, and flatten it, almost to the point where the bulge is invisible, in order to move quickly.

The transition from pouch to back is not abrupt: the baby often

takes one look, decides that the world is a big, cold, frightening place, and dives back into the pouch again very hastily. The mother, incidentally, does not assist it to do so, except by holding still while it scrambles desperately to get inside, and sometimes not even that - she moves off with the little one still struggling frantically to fit as much of itself as possible back into a place that's now too small for it. Depending on how mature the baby is on its first appearance^h it spends only short periods outside the pouch at first, gradually increasing their duration and frequency until it comes out altogether.

For the first few nights it is usually very timid and bewildered. Light hurts its eyes and frightens it, it is surrounded by a multitude of strange and inexplicable sounds and smells. It clings very tightly to its mother's back, and tries to hide in her fur.

After a few days, however, it starts to take an interest in what she's eating, and then takes a couple of tentative nibbles itself. Sometimes the first bite reveals and unimagined heaven, sometimes it is not so successful. But after a few days the baby is regularly sharing its mother's food, and soon can manage a tiny bit from the same source on its own account, though most are prudently diffident about this when offered food by a human: it is better for it to take it from its mother, so accepting her judgment as to what is edible and what isn't. Possum mothers display a great deal of tact - even a normally jittery mother will munch placidly in this situation, to reassure the baby that everything is all right.

With an intelligent mother it can go further than this. Sometimes when a precocious baby has importuned a piece of food from a human, the mother will drop what she is eating, often more of the same thing, and take the piece from the baby, hastily gobbling it up. Since a few nights later the same mother will ignore whatever the baby is given, it seems possible that in some such instances she considered the baby was too young to eat whatever it was, and acted to protect her endangered offspring.

There is little else she can do in such circumstances. Mothers do not normally discipline their own babies - the less pleasant part of their education is left to the tender mercies of Other Possums they inadvertently offend. I know of only one instance. Cassie, a daughter of 'Miri', was only a few days out of the pouch, and just starting on solids properly, when she mistakenly started to eat my hand instead of the food it was holding - a not uncommon error, since both hand and apple look the same colour in the moonlight, and the hand would smell of apple and vice versa, so it must be very hard for a young baby to tell where one finishes and the other begins. 'Miri' instantly quelled her with a severe look, similar to the mild threat used as a parking order to override the baby's automatic reflex to follow its mother, a gesture probably best translated as, 'Uh-uh! Don't do that!'

Jenny, too, had a trick all her own. Babies must grow up and learn to get their own food by their own efforts. Once her baby had grown accustomed to sharing her food, she had a habit of turning and facing away from the food, too large for the baby to handle on its own. The baby learnt to `steal' its mother's food during her apparent inattention. Only the fact that Jenny tended to overact a little, and that her torso was twisted into a

h. This varies, some mothers keeping them in the pouch until they are quite large, others, particularly smaller possums with smaller pouches, by force or choice carrying them on their backs when they are less mature. But Jenny, a large possum, tended to have them on her back early, while Foxy, a small possum, kept them in so long that she resembled a ball with a tiny head on top.

thoroughly uncomfortable position, gave the game away to an observer. ix

Development The separation and growing independence of the baby follows a of the pattern, though, like the transition between pouch and back, it is not below abrupt. The stages do not follow one after the other without backsliding. It is a matter of a gradually developing tendency to do one thing rather than another.

In the nest, the baby at first sleeps cuddled up to its mother, her arms enfolding it, or stretched out beside her, with one of her arms around it. Then, as its self-confidence increases, it sleeps with her but separately, in the same nest. When it is a few months old, it takes up residence in some nearby nest, but often discovers that it isn't quite as grown-up as it thought, and goes home to Mummy after a few days. It moves out again, however, and remains in a nearby nest until it finally leaves home - for far places if it is a male, but preferably for somewhere close to the main food supply if it is a female, depending on the circumstances.

Outside, the baby first travels in the mother's pouch, then on her back, then trails behind her. Again the stages overlap: a baby who has only just come out of the pouch will go back to it if it becomes cold or frightened, one just learning to trail will get back on board if it starts to wear out - or take a flying leap on to its mother's back in a crisis. It varies with the individual: some start trailing when they are still spending part of the time in the pouch.

While still travelling on her back it will start to get off and sit beside her when she stops to eat, as described above. It gradually starts making expeditions further away from her as it becomes more active, only a few feet at first, on business of its own, playing while she meditates, exploring a little, investigating, returning to her at intervals for reassurance and encouragement, or to make sure that everything it's doing is all right. If it strays too far, she calls it back, either vocally or by just looking firmly in its direction, even though its back is to her. (I think this is done by smell, something I'll discuss later.) If it becomes confused as to the way back, or runs into trouble and starts bleating, she'll go and collect it, defending it if necessary.

It gradually moves further away on its own business, at first in the same tree, then, by the time it's a couple of months old, in immediately adjacent trees. At this point it sometimes gets tired of waiting for its mother to take it home, and one night it returns to the nest of its own accord. If this experiment proves successful it starts to make a practice of it. Then it discovers that it can go out without its mother, as well as coming home, and finally starts going and coming back entirely on its own.

There is still a degree of maternal protection, as it naturally goes initially to those places which its mother frequents, because those are the routes it knows. But possums, particularly young ones, are curious as well as cautious, and it gradually explores further and further from the set path - an adult will stick more religiously to the same route for safety's sake. So in time the youngster develops its own favourite haunts, browsing and meditation places, and a separate nightly routine peculiarly its own.

The emotional separation is equally uneven - the youngster gradually develops its own sense of possumhood and personal inviolability, but it's back to Mummy in a crisis, or just when it feels like being babied.

The separation is sometimes initiated by the baby, particularly a female baby, at quite an early stage. The mother washes the baby at first, though it starts making little reflex grooming motions in response; part of the washing process, as with very young puppies, entails cleaning out the baby's bowels, by suction. The mother's action is vigorous, and it obviously hurts the baby, who starts to protest vociferously. It begins to

object not only to being cleaned in this manner, but to anything which might lead to it.

Its own personal territorial sense, the knowledge that Another Possum must not be allowed in close proximity to it, becomes stronger and stronger. This goes hand in hand with the change in sleeping arrangements and the establishment of its own nightly routine, and it comes to regard its own mother as Another Possum. Any attempt to mother it becomes an affront to its incipient adulthood – though it, of course, still feels free to approach her when it feels like being mothered.

At the same time, the youngster gradually begins to look more and more like Another Possum to its mother. Finally the stage is reached when it is either an over-familiar, over-importunate young male to be chased off, or a young female who represents a danger to her nest and food supply.

And a very particular danger at that, since the youngster's own daily routine, through her upbringing, leads her to frequent the same places as her mother, having acquired the same taste (and possums are very idiosyncratic in food matters) for the particular vegetation that grows in her mother's territory. Furthermore, if she has moved from her mother's nest to an adjacent one, it is usually one of the mother's alternative ones. There is real competition.

How fierce it is, and how far the loser has to move, depends on the character of the individual possums, their physical capabilities, and the availability of food and accommodation. A fortunate youngster may settle down nearby, and gradually achieve the status of a tolerated neighbour, so that a group of possums with a family resemblance grows up.

The break between mother and daughter is not necessarily abrupt or complete, and some possums appear to recognise their own children longer than others; Foxy, for example, kept her babies with her in the nest until the next one was actually in the pouch, so that when she missed a season the preceding daughter was a yearling before being separated from her mother. On one occasion, and probably two more, I have seen a mother, already pregnant again, protect a juvenile daughter that had already mated, by deliberately exposing herself to a predator to draw attention away from the cornered youngster. In some cases the main factor in the alienation between mother and daughter is not the mother's hostility towards a rival for her territory, but the daughter's own eventual declaration of independence.

The pattern of departure of young males seems more abrupt, and I can only speculate on the reasons. For female behaviour patterns I have Snoopy and her daughter Kylie, both raised in the house, and Kylie's two daughters, Shrimp and Bindi, who were raised in the roof over my head, where, after a time and visual confirmations, every movement could be followed by ear, when not by eye, as well as the general out-of-the nest behaviour of those who come to be fed. For males, I have only Joey's behaviour, which may well be a-typical since he was hand-reared, although it chimes in well enough with what I've seen of the behaviour of young males in the feed group - those who depart and those who arrive - in particular with that of Jenny's next baby, Twiddly, who frequently visited my room.

As they mature, they provoke more and more hostility from the adults, particularly the males. Their visits to the feed place, whether a favoured tree in flower or a house where food is provided, become more infrequent as they involve more beatings. Joey, at this stage, simply stayed in my room, very reluctant to go out, and even if I reverted to the earlier practice of taking him out he'd simply go up a tree, to satisfy me, then come straight down and head for home, with me trailing after him. An occasional encounter suggests that others skulk in the bush, and get their food from the staple vegetation, away from the prized delicacy of the moment

which attracts the adults. If they come at all, they come late, when the others have departed for the night, and take whatever is left over, without getting into trouble.

At some time during this period they mature sexually - quite suddenly, of course. They smell the scent of a female who is all at once quite irresistible. To judge by the new arrivals I've seen, young male possums are, surprise of surprises, highly excitable, not to say over-sexed. They are as lecherous as satyrs. They are less likely to take `No' for an answer, more likely to jump the gun before the female is ready, and more likely to take risks in pursuit.

If the first love they scent is over the hill, that's where they go. This is the more likely eventuality, since they themselves have been haunting the periphery of the area frequented by the local adults. If she's one of the locals, then they come into conflict with the larger males and are driven away.

Their departure does not, however, always result from being chased. I can think of three Newport male juveniles, Joey, Twiddly and Pekky, who weathered the storm and remained until after the immediately local mating season, only to depart quite suddenly. But I can't remember any before Timmy - who went not at all - who stayed long, or at least failed to absent himself for a considerable period, after he physically matured.

Attitude towards Possum rules apply to possums only. As far as I can gather, a other possum's world view consists of dividing fauna into possums and non-species possums, just as humans divide it into man and animal. Non-possums are treated generically or individually, as circumstances require.

There are neutral non-possums. Ring-tails, for example, are neutral non-possums: they `don't count'. They don't present any serious competition. Ring-tails build their own bird-like nests in suitable bushes and saplings, native, or, where appropriate, imported types such as lantana, while bushy-tails seek out ready-made secure dark enclosed places, preferably with a narrow, difficult entrance that can be easily defended from the inside. While both species eat some of the same vegetation, the overlap occurs in varieties which are plentiful; I only ever met one ring-tail who would accept human food of the sort which delights a bushy-tail, and he could well have been one hand-reared by a neighbour some years before.

Bandicoots, and in particular bush-rats, are non-possums, but the size and general appearance of the latter, and the fact that they tend to inhabit the same sort of places and eat the same sort of food results in a slight degree of confusion - they might be baby possums.

The brightest rats can exploit this situation by stealing food from the possums, with impunity. One of the funniest things I've seen in this regard involved a Newport baby called Piglet. He was sitting up beside his mother, happily chomping his own miniature piece of bread, when a rat flashed out of a crack, and his dinner vanished. He didn't even see it go. He goggled, and peered around, amazed and bewildered, then angry, looking for someone to bite - but all he could see was his mummy, and she was much too big. More frequently, there is a titanic struggle over a piece of bread between a baby possum a few inches long and an adult rat of the same size; neither tries to attack the other, but each concentrates on trying to get possession of the prize. Usually the rat, being an adult,

i. I wish to place it on record that I am in no way responsible of Old Pig's name; he didn't look in the least like a pig to me, nor were his manners particularly reprehensible, rather the reverse. But if that was a Pig, this, quite clearly, was a Piglet.

wins, but the mother possum does not interfere. Apparently she is afraid of committing an impropriety against a baby of her own kind.

However, it is not always the possum who loses by the association. Bushy-tails don't seem to build proper nests, but are dedicated opportunists where finding them is concerned. Bush-rats build quite splendid nests from grass, twigs and any other suitable material they can find. I know of one case where both rats and possums were living in the same roof, and a possum was snugly ensconced in a marvellously constructed rats' nest. The rats, apparently dispossessed, had built another nearby.

Cats and dogs are non-possums to be treated with caution, as potential predators, until they are known to be safe - either non-killers by nature, or confined at certain times of night. Discretion and discrimination between individuals are the key-words with them. $^{\times}$

Possums, There are at least two desirable sorts of non-possum, though it Horses, and is generally recognised that individuals vary, and possums usually wait Humans and watch for a few days before making an approach.

Horses are mildly desirable non-possums because they live in stables, where there are often nesting places and exotic food available. Occasionally, one finds a situation where there is some sort of bond between one particular possum and one particular horse, the possum paying nightly visits to the horses stall, and being permitted to take some of the food from the horse's feed-bin. In other words, the possum gets his `handout' from his horse, in the same way that another possum might get his handout from his human.

Humans are desirable non-possums for the same reasons. Where they are, there is often good food, whether in the form of handouts, or food left out for them - they don't know that the garbage and litter strewn along the roadside isn't intentionally left for them. There is also likely to be desirable accommodation. Good nests, where they have room to stretch out on their backs, but still be secure from intruders, tend to occur in roofs and sheds.

Furthermore, it is known by possums who have had the experience that some humans can be trained to produce food at a time and place convenient to the possum, that humans can be good company - they certainly don't act like Other Possums - and occasionally helpful with extra dinner if a possum is having a bad time through injury or illness, making it temporarily difficult for it to travel as far as it needs to to feed.

Possums who are accustomed to gentle treatment from humans like humans. Those who are accustomed to being handled tolerate it, though only a very few seem to actually like it, and then always provided their individual right to privacy is respected and their own peculiar rules for inter-special contact are observed.

Since these rules do in fact vary greatly with the individual possum, it is easy to infringe them inadvertently, and then they can do you a great deal of damage, deliberately with their teeth, or coincidentally with their claws. And you can cause a great deal of distress to the possum. I, for one, am unwilling to touch a strange possum - or any possum for that matter - unless and until it shows signs of wanting physical contact with me. Except, of course, in an emergency.

The worst things you can to are: to pick up an adult possum, especially without warning - it is trapped, in a situation not of its own choosing, its personal privacy is being invaded, and its adulthood is being insulted - being carried is for babies! Or, to disturb a sleeping possum in its nest: the nest is chosen, and usually deliberately kept secret, for reasons of security; with a female, it is the core of her territory, emotionally if not topographically, and as such the core of her emotional

being. Some indeed choose nests where the position is known to their own humans, and are quite delighted to pop their heads out for a treat, on cue, in the daytime - that's probably part of the reason they chose the nest in the first place. But that is their choice, and hand suddenly shoved inside the nest without warning is likely to be dealt with by possum law, as a reflex action.

It does not hurt, in this respect, to indulge in a little anthropomorphism, and think how you would feel if a gigantic possum's paw suddenly appeared through the bedroom window in the middle of the night.

Could someone who can draw please supply an appropriate cartoon?

Even so, if the possum is awake, it will almost always warn repeatedly, and in the last analysis nip - a hard pinch that doesn't break the skin - before biting. It is, of course, physically capable of taking the top of a finger effectively off, if it really means it.

But one of the warning gestures is very ritualized, and hard to recognise unless you are familiar with it. Common justice says that you cannot blame a possum who bites you after repeated warnings; common sense says that you don't provoke the situation unless necessary.

About the only way to get on with possums, or, for that matter, most other animals, is to accord them the same degree of courtesy you would a human of similar age and familiarity of acquaintance. For, far more than domestic animals, adult possums are <u>adults</u>, and the fact that their intelligence is more limited than that of an adult human does not prevent them from having their own dignity, and resenting babying tones and patronizing attitudes.

And, as always in inter-special relationships, when a conflict arises, the onus is on the more intelligent species to make the concessions. Theoretically, we can comprehend their world, their rules and values, and make appropriate allowances, but we can hardly expect them, with their more limited intelligence, to comprehend the complexities of ours.

While I was looking for Snoopy, I found that there must be somewhere between one and two thousand possums in this area, but I've never met a `wild' possum, in the sense that it hadn't had contact with people. Virtually all of them are used to coming to houses for food left out - intentionally or otherwise. Some, those who have known friendly people, will come to you of their own accord. Others shy away - perhaps as a result of less friendly relations. Most simply regard you from a distance, with caution, until they are sure your intentions are harmless, and your business isn't with them, then go on with their own. They have their own human friends, but you're not one of them, and there is no point in risking an approach. You are a neutral non-possum, deemed to be a potential predator until proven otherwise, then simply ignored.

But none of them don't know what sort of a thing a human being is.

In this district possums live in their greatest numbers in places where there are both houses and trees, and are entirely absent only in completely built-up areas. They have, like all possums, adapted their behaviour so that they can discharge their necessary activities under the

conditions in which they find themselves, at the same time seeking out the best conditions they can.

To put them in human terms, they live in a kind of parallel world to ours, a world which contains the same physical objects, but where those objects often have an entirely different significance, and an entirely different use. They have their own laws, some innate, some learned through experience, and for the most part they obey them. They have their own system of land tenure - they own territories just as much as humans do - but the two systems do not coincide. They establish their territories according to possum needs and capabilities, not according to human fence lines. have their own roads, predominantly above ground routes, well established, each twist and turn created for a good reason in the first place, then maintained by habit, sometimes even after the conditions which gave rise to them cease to exist. They have their own system of time, their own daily routines, even their own local customs, visiting certain houses at certain times, a practice passed from generation to generation, learned by each when it comes on its mother's back. The two worlds occupy the same space, but don't touch unless an individual inhabitant of one or the other wants them to.

The possums live near humans because they want to. From living in an area where possums are often dumped, Ingleside, I had already guessed what information I've had since confirmed. There were simply too many possums killed on the then dark strip of Mona Vale Road above the cemetery to be accounted for by seasonal migration alone. I and other local residents who travel that way regularly know that there is at least one killed every couple of weeks, usually more. Possums are dumped in the bush, and try to go to the house-lights down on the coast, pausing sometimes to eat the constant supply of edible litter kindly provided for them along the roadside. Possums who are used to living in or near houses try to go home, or failing that to another house. And are very often killed trying to do so.

They are true suburbanites, like the birds who come to be fed. They love trees, and bush, but they think there ought to be houses, too. Some unwillingly assimilate into bush conditions, though, particularly if they are female, they are strange possums to the locals, and treated accordingly; if they are male, one of their two overriding preoccupations to date has been how to persuade humans to provide delicious food, and they miss their creature comforts. It's rather like picking up a suburbanite human and dumping him or her in the wildest part of New Guinea.

If they have to be moved, they have to be. Moving them, with permission of the authorities - jail and/or fine otherwise - in accordance with the law, and above all to a place a long, long way from home and away from possum landmarks which would give them the direction (around here, for example, Pittwater and the sea broadcast visual, auditorial and olfactory signals for miles) - well, at least it gives them a chance. Possums love life, and are prepared to struggle for it even under adverse conditions.

Some, indeed, are lucky. If they are youngsters who have been accustomed to get only what the adults leave in terms of nests, food and females if applicable, and they happen to be dumped in a place suitable for possum, but where there are no adult rivals at the moment - such places are as rare as the proverbial hens' teeth - then they might even benefit from the change, but this depends entirely on what local possums are already in the neighbourhood.

But in 99 cases out of 100 you're not doing a suburbanite possum any favours by Returning it to Nature. Possums don't know anything about the distinction between Man and Nature. They know about the distinction

between good nests and bad nests, good food and better food, and those with any experience of people, effectively all of them, know that what they consider desirable `occurs naturally' in the vicinity of humans. That is now their natural habitat. The only way you can Return a suburbanite possum to Nature is to let it be.

Like the birds who come to be fed all over the district, they are free, and protected by law. They belong to no one but themselves, and they come and go as they please, or don't please, according to possum behaviour patterns. They decide which houses and which humans to approach, and once safe routes are established they rarely change them without reason, for obvious security considerations. I've lost count of the number of times I've been assured quite sincerely by people who've lived in the same house for years that there are no possums in the neighbourhood, when there's a group coming for food regularly a couple of doors away. Possums are very hard to see unless they let you see them. They come to you when they decide to trust you.

Some develop friendships with individual humans, something I'm going to talk about later; for obvious reasons, a possum who wants a friend has to bond with a non-possum. Many like humans in general, particularly male possums, who understandably find human company a welcome change from that of their trichosurine colleagues. When they come, they usually want a bite to eat, if you please, but that doesn't mean they don't like you as well. When they decide to trust you, they trust you implicitly.

They aren't owned pets, they are free, independent animals who make their own decisions, friends who drop in for a snack when they feel like it, who get an occasional helping hand when they need it, but for whom any sort of restriction of their movements without their consent is likely to prove unsuccessful, from the point of view of one party or the other.

The best thing you can do for a possum is, obviously, nothing at all; or, failing that, as little as possible. Unfortunately, however, the situation is not so straightforward.

If you feed them at all you are tampering with them, increasing the total possum food supply and allowing the establishment of routes. the extra food supply must be balanced against the decrease in the natural vegetation due to clearing. If, as has the case to the best of my memory with almost every baby in the Newport groups, you field a fallen youngster and pass it back up to its mother, before a marauding cat or dog can anticipate her tricky descent from the top of the tree, you are tampering. You are removing the baby from a danger which it would otherwise run. But the danger, in the form of dogs and cats, was itself introduced by man; in areas where they are not so numerous, the chances of the baby surviving what is an extremely common mishap are much greater than they are in the suburbs. The possums were already there when the white man came, and they remain there because, whether we know it or not, we have introduced desirable as well as undesirable factors into their environment. If you don't feed them, they still remain, and still get fed, because they can scavenge in garbage tins along the roadside.

In any case, the `damage' has already been done. The first white settlers arrived in this district well over a hundred years ago, and that's how long possums have been living beside Europeans. Like every other surviving species, they evolve in response to changing ecological factors, and for over a hundred year they have been adapting to the white man and the changes he has brought. A hundred years is a hundred possum generations, say a thousand years, human time. It's a bit late now to start prating about unspoilt children of nature.

It's obviously a personal decision. Personally, I am inclined

to initiate no new contacts, but respond appropriately to any overtures the possums themselves make. In other words, just let 'em go on doing what they're doing, adapting, and see how far they get. But I give possums only about as much food as would amount to one of the short periods of browsing that characterize their nightly routine - a snack, not dinner for the night.

There are always exceptions, of course - a sick possum, or one that is having difficulty with a baby gets a bit extra, so it doesn't have to travel so far to feed, but it's not continued on a permanent basis, so that there is no possum dependent on me for more than a brief period. And they need their teeth, not only for eating but as their main weapons, so sweets, honey on bread and suchlike are a treat given a few times a year, not a regular occurrence.

Snoopy was an exception, a borderline case, too much of a possum to be caged, but still not capable of coping with the world entirely on her own account. There must be other such rare exceptions, and they must remain outside the law - there is no way I can see that the law could be altered to allow for them, without opening the door to abuses. And indeed, you cannot own a possum, not only in law but in fact: possums just aren't that sort of animal - although they can certainly own you, quite literally, according to possum law.

Sick Possums, Common sense just has to prevail. A sick or injured possum suggestions: can't be left to suffer any more than any other animal, just because it is native fauna. But the best you can do is still the minimum you can do.

Minor afflictions are usually best dealt with by simply giving it the prescribed medicine in its handout - but I stress prescribed: possums are highly sensitive to human drugs of any kind, which are likely to kill them or do irreparable damage; even aspirin, for example, does far more harm than good. Even a possum that's immobilised is better given a small dark place safe from predators, and especially from other possums, in its own known territory, with a quick trip to the vet while it's dormant during the day if necessary, than it is removed to a veterinary hospital. But of course in the case of a road accident, or a bad dog attack, the reverse applies, and immediate veterinary treatment is needed.

If it needs to stay with the vet - by which time it is usually oblivious of its surroundings anyway - and it's a known local, make arrangements to return it to its own home, or at least a place familiar to it, as soon as possible. Again, when it comes back, the best you can do for it is to give it, or preferably let it `find', a small dark place somewhere familiar to it, but protected from other possums. Feed it twice a day, on the leaves it usually eats as well as the type of human food given as handouts, disturbing it as little as possible, petting it only if it's a particular possum that has previously liked handling, and can gain reassurance from it. Give it its medicine, and otherwise Leave it alone. Always, the minimum amount of interference is best.

<u>Don't</u>, ridiculous as it may sound, be too scrupulous about removing <u>all</u> the soiled leaves. A possum doesn't normally foul its own nest, but one that is immobilised has no choice. Emotional factors are always paramount, and the sooner its present sleeping place smells of its own familiar personal smell, the better, and urine is a short cut to this situation. So leave a couple of soiled leaves, preferably the driest, and also unsoiled leaves, so that they dry out and build up into a warm, comfortable familiar-smelling bed. Once it feels at home - when it starts grooming naturally, and stretches out full length on its back to sleep - it will appreciate having the place cleaned up a bit, provided always that you

don't interfere too much with its personal privacy^j and leave sufficient material to ensure the continuity of smell. The first emotional crisis will have passed.

In line with the security of the nest syndrome, the first thing it will want to do, once it can move at all, is to choose a safe nest for itself. They have a habit, of course, of picking on the most impossible place there is. But if by chance it does hit on a place where it can stay, even if it's not as good as the one first given it, again, it is better to abide by its decision. The point of the exercise is to find itself a place where it considers itself safe, from you among other things, so try to avoid letting it know you can actually reach it - put the food where it can get it and leave. Once the possum thinks it's in a safe place of its own choosing, the healing process can begin in earnest.

In the same way, a convalescent possum <u>must</u> leave before it is physically ready. It wants to go home. Furthermore, it has to - however comfortable its present situation, it has duties to perform. It thinks, not without justification, that if it doesn't keep its real nest and territory marked and patrolled, it will lose it to an intruder.

When it decides to go, it will become quite single-minded about it. If you don't let it go, it is likely to fret itself into a worse state, not to mention turning on you what, from its point of view, is a thoroughly justified attack. And a determined, dedicated possum can get out of almost anything - make a hole in a door, widen wire gauge, patiently undo a long series of blocking bricks. If you try to keep it, the chances are that after worsening its condition by fretting it will get out anyway.

When it decides to go, it can put on such a show of recovery and normality, for a short time, that it can, and will fool even a vet. It is in fact `back to normal' - but not for very long under stress conditions. You find this out only when you discover it lying exhausted on the ground a few nights later. But there is nothing you can do about it, other than recapture it for a time if necessary - your efforts have at least improved its chances, and it will have come to terms with its diminished physical capacity during the remainder of its convalescence.

It will therefore, of necessity, be loose among other possums before it is entirely competent to cope with their attacks, either by fighting or fleeing effectively, and before it can cope with any but known hazards avoided by habit. But the attacks of known neighbours are nothing compared with those of strangers, and the dangers in its own area are, for the most part, known and avoided.

The $\underline{\text{worst}}$ thing you can do for a sick or injured possum is to put it into a strange area of bush. If it hasn't a known home it just has to stay in confinement until it has totally recovered,

In short, all you can really do for a sick possum is to give it the best possible chance to make its own recovery.

Travel, Just as their behaviour is partially modified to adapt to tree conditions as they find them, and hence in part a product of those roads conditions, it is also partially a product of their physical construction.

Basically, they have four paws, which can be four feet, two (front) hands and two feet, or four hands, depending on the circumstances of their use, and in trees they often have, in effect, five hands, since the

j. Any possum, sick or well, is likely to bite on reflex if disturbed in its nest without warning. Invalid possums are also no less cantankerous than invalid humans, and may bite even if not surprised. They `can't help it', any more than their human counterparts, so it's always advisable to be prepared and wear protective clothing such as thick leather gloves - at least with the possum invalids.

long, prehensile tail is used for securing an anchoring hold on the thinner branches.

The front hands look very much like human hands, with five fingers graduated in size, but there is in fact no opposable thumb there, despite the manual dexterity they display. The opposable thumb is actually on the hind hand, on the inside; next to it are two small conjoined 'grooming claws', usually two phalanges in length, but otherwise miniatures of the two large fingers, with very large claws, on the outside of the hand, which oppose the thumb to provide a gripping action. The 'grooming claws' are indeed used for grooming, being partially joined so as to form a natural, 'built-in' comb, but the larger claws also play a part in grooming, and the 'grooming claws', where necessary, help to secure a handhold when climbing; the front paws are used in the grooming process in much the same manner that a cat uses his forepaws, to wash the face.

FRONT FOOT

Used for walking, in the diagonal trot, or for balance when bounding, and for grasping when climbing, but otherwise as human hands, to pick up or hold food, etc. Used as a weapon only when boxing with equals, but also to hold escaping defeated opponents

Apparent thumb, really tinger Whiskers.

BACK FOOT Hind legs provide main locomotive power, when climbing vertically or when bounding, the gait used for long distance ground travel, except over cleared spaces where dragonal gait used to

Proportional

size to

fingers

these sketches were based

on Bindi's

inher the

disparity in size was

Pronounced

In Snoopy,

and others

it was much

larger

from Possum to possum:

remain, low to the 2 large ground.

Back foot, with opposable thumb, used for grasping branches and for main hold on tree.

Large fingers with claws. employed mainly for gripping, and small "grooming claws" for groomingon inbuilt combbut larger digits also play a role in grooming, while the "grooming claus" are also used as an additional archer when climbing or maintaining hold.

fingers with Claus 2 small conjoined grooming thumb

> njurg In Snoopy The model for the sketch was, however, whom the disparity

in size between prooming claws and main digits was unusually marked. Bushy-tails are essentially arboreal animals, but they can, and often do, move quite well on the ground. They are lightning fast over a short distance, up to ten or fifteen feet. But for more than that distance they are no match for a dog - I once had the misfortune to see what happens; the possum made it to within a few feet of the nearest tree, and I'll never forget the scream. Possums know of this danger - there were dingoes before there were European dogs - and avoid travelling over cleared ground whenever possible. Instead, they establish routes through the trees and bushes, and, where available, fences and roofs, moving from one to the other, preferably where they touch or overlap, but jumping six feet or more where necessary. k

Although they climb very well - as well as many species of monkey - walking is easier still, and many like to do so where they feel it is safe. When they can, they prefer large trees with large branches along which they can walk, as opposed to climb, and roofs, where available, make a pleasant break in the route, where they can stretch out but still be safe. Some of those accustomed to handouts in particular places are quite happy to come along the ground and sit there eating as long as the presence of a known human guarantees safety.

There are two basic gaits on the ground: the diagonal walk, trot or scamper, used along possum tracks – tunnels about 12" height through dense undergrowth – and the kangaroo bound, $^{\rm xi}$ used for longer distances and when maximum speed is required. In the latter, the power comes from the hind legs, and the front ones are used mainly only for balance, touching the ground only lightly, if at all, once travelling speed is attained.

For going up trees, essentially this same bounding action is used, but with the claws of all four hands, as they become in this situation, providing the necessary grip to secure the possum between bounds.

When moving along small branches they walk, gripping with all four hands at each step, like monkeys - climb, in fact. The long bushy tail is prehensile, with a furless strip along the underside to provide a better grip: it is used mainly to secure an extra hold in awkward positions, or to allow them to stretch out full length horizontally; they do, however, actually hang by their tails¹ where necessary, to capture with their front hands the tender choice young leaves which grow at the end of branches too small to support their weight. When feeding, whether on leaves or on human handouts, the front hands are used precisely as hands, save only for the lack of an opposable thumb. xii

The tree roads are dictated partially by these physical capabilities, partially by the topography, in possum terms. They are often

k. Adults can jump horizontally, or at an upward angle, four to six feet or more, the males, for obvious reasons, covering greater distances than the apparently permanently pregnant females; jumping at a downward angle of course covers even greater distances. Neither male nor female adults can do much in the way of vertical levitation. But the light-boned babies of both genders go through a 'grasshopper' stage in which they can shoot up vertically from the ground many times their own body length; through the trees they seem to have ambitions of growing into gliding possums.

^{1.} For this reason, if a possum <u>must</u> be picked up, in a situation where no spinal injury is suspected, the most practical method is to pick it up by the tail, grasping the thicker part towards the body, and dangling it straight down so that there is no lateral torsion or twisting to put a strain on the junction with the body. Possums lack a convenient handle, such as the scruff of the neck in a dog or cat, and this is the nearest equivalent. It is no real substitute, since it does not induce an infantile reaction and quiescence, as does taking a cat by the scruff; the possum is likely to double back up its body and express its disapproval with its teeth. However, there is usually a few seconds' stunned grace, enough, say, to get a possum that has strayed into a house and started to panic in the light back outside where it belongs.

sinuous, tortuous, and to the human eye quite illogical, but if you watch possums following them, you'll see that in fact they are eminently suitable, the best way for a possum to go.

COMMUNICATIONS: Their communication methods, too, are a function of their calls, physical capabilities.

gestures

There are three, perhaps four, basic calls. One is the hissing and scream of anger or alarm. The main one, variously described as a bark, a attitudes cough or a chuckle, is the basic guttural kook-kook. Fundamentally, it is a call of aggression, but there is a very great range of tonal variation, expressing mood, including, of course, affection - re-directed, or mock aggressive behaviour is used as an expression of affection in most species capable of such an emotion. I can pick up only the grosser variants - anger (with Quaa- kook-kook-kook for emphasis, as in, `Get-to-hell-out-of-here'), warning, alarm, the softer cajoling call of a courting male, the anxious call of another to a straying baby, the fussy little cluck which Snoopy, in particular, reserved for small passing non-possums such as mice, or small objects of no possum use which suddenly appeared in her house.

There is also a thin, piping, but woefully soft cry of a lost baby, like the cheeping of a little bird. I thought at first that this was the main call produced by tiny vocal organs, but Snoopy used it as an adult to call me if she were in distress, and I've heard two other adults, Erik and either Snug or Charon, use it in moments of crisis.

A separate call, less frequently used, is the slow, rhythmical clicking, very similar to the sound you make with your tongue against your teeth or the roof of your mouth (a dental, or alveolar, velaric suction stop in phonetic terms). I have heard this described as a mating call, and indeed thought it was a mating call myself for several years, since I'd only heard it made by a courting male, certainly its most frequent context. But I have also heard various females click, often to the accompaniment of taillashing, which indicates indecision or conflicting emotions or drives, and always in a situation where that appears to be their state of mind. The basic meaning, therefore, seems to be the same as tail-lashing, though perhaps, since it is less frequent and only seems to occur when the possum is extremely agitated, it signifies a state of more violent emotional turmoil.

It is easy to see why the male almost invariably clicks when courting - he is torn between his desire for the lady and his well-grounded fear of what she will do to him if he continues to press his suit. Indeed, a courting male so frequently clicks that it doesn't seem improbable that it may have become a kind of *de facto* mating call: the female probably takes it as of a piece with the cooing and coaxing.

Because of the great deal of tonal variation which they employ I usually talk sense when talking to possums - not because I fondly believe that they understand the words themselves, but because the words have meaning for me, and produce the right tone in my own voice. Like all animals, they enjoy being babied at times, when they themselves are in the right mood, but even more than in domestic species, an adult is an adult, and too much of the diddums-do bit is an insult. And they show it quite clearly - with an expression of disgust on their faces, they firmly and deliberately turn their backs on you, and in the last analysis stalk off with extreme dignity.

They also communicate with each other by non-vocal, non-visual means of some description. I have seen, fairly frequently, a mother call a straying baby back by looking fixedly, and silently, at its retreating back. I presume this involves their sense of smell, which is in any case their

most important sense.

Whatever this soundless calling involves, I could, to a certain extent, do it too, with the two babies I reared. They often failed to come to my vocal call until I did, once they reached the stage of going out and coming back alone - then suddenly appeared out of nowhere. With Joey I could never be sure of this - it could simply have been coincidence, as I didn't get anxious until he was overdue, or heard trouble outside, circumstances under which he himself might well have decided to come home simultaneously. With Snoopy, who remained dependent on me for much longer, it seemed to happen too often, under unambiguous circumstances, for it to be no more than imagination; the noise which had alarmed me would turn out to be one of the normal nocturnal noises imperfectly heard, and she would have known it.

For me, this special sort of calling involved a state of anxiety associated with a particular physical reaction - the gnawing, knotted feeling in the pit of your stomach which gradually spreads upwards over your shoulders until you start shivering. I wouldn't be at all surprised if someone were to tell me that it's associated with a glandular reaction of some kind which produces a body scent, detectable to Snoopy and Joey, but not to me. When I did this, I almost always got my possum, I but I couldn't fake it. In the end, I could induce it by `method acting', but the method acting had to go to the point where I really meant it anyway. But however it works, its real, and has a real range limit; I always had to get fairly close, say within earshot, before I got results.

While it was evident that Joey and Snoopy could identify me from afar by smell, neither ever seemed to fully understand why I didn't know, by the same means, where they were. In time they both came to accept my disability to a certain extent, and learnt that only a close-hand visual acknowledgement would assuage my fears and persuade me to leave them to their own business. For mother possums do indeed know where their own babies are, even when they are invisible and noiseless. Some of my mother's friends at Newport, those of the Foxy line, learnt the human phrase (or rather sequence of sounds), `Where's your bub, Foxy/Sherry/Twiddy?' and if she insisted would finally point in a particular direction with their noses, from which, sooner or later, the tiny truant would come struggling through what, to it, was impenetrable jungle.

Possums also have a range of gestures and attitudes, `body language', which mean particular things. Most of them can be either involuntary expressions of feelings, or deliberately employed, vis-à-vis another possum or a human, to get the message across. Naturally, each individual possum, like each individual dog, cat or human, has its own personal `body language', signals peculiar to it, but some gestures and attitudes are common to all.

Many of them are unmistakable, some are not. Rearing up on the hind legs, arms above the shoulders, hissing and swearing and glaring, particularly with ears laid back, means, not surprisingly, intent to attack. Standing upright, ears pricked, without aggressive gestures, means alert the possum wants a better look at something unfamiliar, and possibly dangerous. There are also conditional threats, warnings. A quick turn of the head, and a feint towards an attacker (supposed or otherwise) with mouth partially open, and the more ritualized version, a slow turning of the head and a movement of the snout towards the attacker, accompanied by a suspicious glare, both mean, `I'll bite you if you do that again.'

Their faces are capable of a range of expressions, their bodies even more so. Face, position of the ears and body together seldom leave much doubt as to their feelings. They can glare, show suspicion or fear,

beg, plead, enquire, express surprise, disgust or disappointment. Once you've seen enough possums so that you no longer see only a possum, a combination of unfamiliar characteristics, there is no mistaking the joyful scamper or bounce of a possum in fine form, or the delirious delight of a possum enjoying something Absolutely Delicious to eat, accompanied by lipsmacking noises, or the look of disappointment - the ears go down, the body droops, the eyes become sad, everything says, `Aw'.

There was no mistaking Snoopy's gestures of affection, either - sometimes she would kiss me, licking my face and hands with quick little licks, dabbing me with lightning wet dabs of nose and mouth, or snuffling in my ear; sometimes she would cuddle me, or as much of me as she could manage, a hand or foot or leg; sometimes she just wanted to sit beside me and hold my hand - she couldn't manage the whole hand, so she just took one finger and held it in her own hand; if no hand was available, she would simply sit against my legs, maintaining a light, constant physical contact, and go on with what she was doing, eating, grooming, meditating; or she would just sit at my feet, with one hand on my foot; if I visited her outside in one of her trees, she would come down to the lowest branch and sit beside me, one hand resting lightly on my shoulder.

Unlike dogs and cats, possums haven't had centuries of contact with humans to develop certain of their own basic actions - rubbing against legs, purring in anticipation, etc. - as begging gestures, recognised by But they do in fact similarly select the nearest appropriate both sides. gestures in their own repertoire for the purpose. Those which come along the ground to you use a version of the chest-rubbing action that normally They rear up and embrace your leg - `You're mine - I denotes ownership. love you - You will feed me, won't you?' The action is often incomplete once its meaning has become established, so that they simply stand up beside you, patting your leg with their hands or plucking at your trousers, to get your attention. The gesture is frequently accompanied by an audible sniff. The first question a possum asks about anything, once it is known to be safe, is, What does it smell like? Then, What does it taste like? `Nif, Nif, What do I smell?' - `Anything nice for me?'

At first I couldn't be sure whether this Nif, Nif, Nif business, and the lip-smacking noises they make when they are eating the very thing that is their own private concept of heaven at the moment, are ever attempts to communicate, or whether they are always just involuntary expressions of emotions. Both, of course, are in some sense optional: they can eat, and sniff, completely silently when they want to. Some certainly seem aware of the potential communication in the lip-smacking noises, at least in the negative sense: on several occasions I have seen weaker females who were wading noisily into some delicacy stop suddenly when they spotted a stronger possum in the vicinity, wait until they were sure it wasn't coming any closer, then resume eating, silently - there was no way in the world they were going to announce to the enemy that they had something Absolutely Delicious.

Snoopy certainly used the audible sniff to ask - a question, or for something - as was shown both in her reaction to my response, and by her use of it on occasions when what she could actually smell wasn't relevant to what she wanted. For example, on the floor, inside, she would use it to ask me to pick her up and take her for a walk, sniffing to me, not out the window or door. But Snoopy lived with me for 4½ years, and both of us developed gestures and sounds understood by the other, just as a dog owner and an intelligent dog have their own private `language', which, after several years, results in a fairly sophisticated system of communication.

However, Old Pig, at Newport, used the audible sniff to ask for

food, or a particular item of food, quite regularly, in unambiguous circumstances. $^{\rm xiv}$ It therefore seems likely that when others appear to do so, in what are not quite such unequivocal contexts, they may in fact be deliberately trying to communicate their wishes.

The other standard begging gesture is used by those fed up trees (though of course possums in a group often chop and change from one to the other). This gesture consists of anchoring themselves by their tails and reaching out towards you, sometimes actually waving their hands to attract your attention. This is the position of a possum reaching for a particularly luscious tender young shoot or flower at the end of branches too small to bear its weight.

I was interested when Kylie, Snoopy's daughter, developed this gesture as an adult. At the time, she was just getting over the phase when she regarded me as Another Possum, to be bitten and evicted from the most desirable nest available, namely the house, and beginning to regard me simply as a human food-giver. Relations between us were not yet such that she could use the leg-rubbing gesture - physical contact with me still triggered off her biting reflex, and I wouldn't come that close to her.

Possums do in fact copy each other's behaviour when the actions in question are seen to produce a desirable result - at the most basic level, if one starts coming for food, others will watch, then start coming themselves. But Kylie had had no opportunity to take such lessons. Her contact with the Newport possums had been brief and traumatic, a couple of occasions when I took her there as an adolescent to see if there would be any chance of integrating her with the group. She was too busy running to study any non-aggressive actions on their part, even supposing her memory of such an observation could have lasted so long without the reinforcement of performing the action herself in the interim. She apparently independently chose the only applicable gesture in the possum repertoire other than legrubbing, which was precluded in her case.

The degree of politeness with which possums ask depends entirely upon the individual possum. Some, for example Foxy, Sally, Bindi and above all Snoopy, are unfailingly polite. They ask with a slightly apologetic air, `If you please, I don't want to bother you, but...' Others, for example Horrible and Kylie, usually just say, `Gimme!'

Scent trails and ownership chest-marks are, of course, also a form of communication - they contain a message for a possum, either the one who marks or an intruder, who is separated by time or distance, the same basic principle as writing.

Mostly these gestures, in their original context as opposed to being used to communicate with humans, seem wholly reflexive or `instinctual', although there certainly are occasions when they appear to be done with thought, deliberate intent, possum to possum.

NIGHTLY A possum's nightly routine in the bush varies greatly with the ROUTINE possum and the conditions in which it finds itself. Generally speaking, when it wakes in its nest its first action is to orientate itself. It then grooms itself, and proceeds to peer, sniff, and listen out, to see what's lurking, before it ventures forth.

When it does so, it makes its way as quickly as possible to the first of its regular stops for food. After eating what it requires it settles down to meditate and view the surroundings for a while – $\frac{1}{2}$ hour to 2 hours – before proceeding to the next feeding place. And so on.

In the process, a female checks, and where necessary re-marks, her territory, investigating anything new, particularly in the possum line, and a male similarly inspects that part of his territory, or range, through which he is travelling.

This pattern is broken up by whatever comes along, in terms of possum activity. A `normal' possum night is about as rare as a `normal' human day - there is always something different.

Ultimately, the female returns to her nest, and the male goes to whichever one of his he intends using the following day. Invariably, after checking the nest for signs of intruders, they groom - a more elaborate version of a cat's grooming process, involving biting out burrs and other foreign material, " combing or scratching with the grooming claws or the large hind claws (licking the claws clean at intervals), and interspersing combing with washing with the tongue; as with cats, the face is washed with the front paws, which they moisten from time to time with their tongues. A female pays a good deal of attention to cleaning her pouch, and anything that might happen to be in the pouch at the time; a male pays a lot of attention to cleaning his penis, which he erects for the purpose. Since all this involves complicated contortions, the main grooming sessions are generally reserved for the nest, with only the occasional scratching or washing in the trees during meditation. Grooming is a pleasurable activity to a possum, as well as a necessary one.

After grooming contentedly for a while, they finally go to sleep.

Their overall activity pattern is therefore explosive - short bursts of lightning quick motion, incredibly energetic, interspersed with long sedentary periods.

When they go to bed depends very much on such things as the weather, the time of year, and what happens during the night in terms of possum activity.

If there's a particularly delectable variety of seasonal vegetation available, they may stay out longer to do it full justice; on the other hand, if they run into trouble with a larger possum, or they detect the presence of a stranger who might prove a threat to their nest, they return earlier; if they are courting, they sometimes stay out until just after first light; and sometimes, when the weather is fine, the night is just so beautiful it's good to be alive, and out in it, and watching, and investigating, they stay out longer for no other reason.

But they also love comfort, too, and in bad weather often stay in bed, at least for the first night, and go out only as far as the nearest food source, to snatch a quick meal, if it continues the next night. Their coat is effectively waterproof for all but the heaviest downpour, but they are far too sensible to spend more time than necessary in cold, damp, uncomfortable conditions. Sleeping in warmth and comfort with wind howling and the rain pelting down outside can be a positive activity, too.

Furthermore such weather conditions are dangerous. The sound and scent of approaching predators is undetectable.

During the day, they sleep. Once asleep they are completely

m. They don't, incidentally, often pick up parasites other than 'possum ticks', the less deadly variety of ticks, to which they are of course immune. Snoopy, who went outside regularly, and slept on my bed for four and a half years, never got anything apart from the occasional tick. On one occasion one of the cats went out and rolled in the sand, came back with a coat full of fleas, and sneaked on to the bed, where, no doubt discouraged by the Malawash on the cat, the fleas promptly decamped. I was scratching for days, and desperately fumigating the bed; Snoopy, with what I would have thought was a far more inviting coat of fur, never even got one.

Trying to remove ticks from possums usually does more harm than good - whenever I've yielded to the temptation the bite has festered, whereas if the tick is left to fall out itself, or to be removed by the possum at its own discretion, there are no after-effects.

relaxed - dead to the world. There is nothing more relaxed, and prone to induce relaxation, than a contentedly sleeping possum - if you think a sleeping kitten curled up purring on a bed is soporific, you should see a possum under the same circumstances. All possums are two possums; the angelic sleeper of the daytime, and the very wide-awake and active little monkey of the night.

Most of those in the two roofs with which I've had experience, at Newport and Ingleside, do stir at some time during the day. They groom a little, and perhaps change their location to another a few feet away.

Snoopy did likewise, though because of her facilities, she made use of her short diurnal activity period to slide off the bed and have a snack, returning either to her former position or to the alternative nest under the bed. Sometimes possums, particularly breeding females, bring small amounts of leaves into their nests, usually of an edible variety. Whether they, too, eat them as a midday snack, or whether it's merely a vestigial nest-building reflex, I don't know. Since both leaves and bedding were provided for Snoopy inside, she had no need to do this in either case. She only brought a leaf in once - on the momentous occasion when, as a pathetically weak baby, she made her first independent trip, a few feet outside the window. On that occasion it was definitely her dinner that she brought back.

Possums who are lucky enough to have the opportunity include

PATTERNS calls on food houses in their routine, in exactly the same way as they

include stops at particular trees where they are in the habit of browsing.

Some identifiable individuals I heard of while looking for Snoopy seem to

have had five or six houses lined up as points of call, and so relied

heavily on human food as their basic diet. So, in a sense, Snoopy and her

Ingleside associates were more `natural' possums than some other

suburbanites: even Snoopy herself, of her own choice, always took the bulk

of her food from the natural vegetation.

What this actually means is that some possums have adapted more thoroughly to some suburban conditions than others. In so doing, they retain the protection of innate feeding patterns evolved for bush conditions.

Unless a particular delicacy is in very limited supply, as with human handouts, or unless food in general is so scarce that they would otherwise starve, possums won't eat <u>all</u> of anything. They take a little from here, and a little from there, a pattern reflected on a larger scale by their nightly routine, moving from tree to tree, from food source to food source.

There is obvious ecological reason for this feeding-pattern - the survival of all varieties of vegetation eaten by possums, to the long term benefit of both. For the possums there are even more important short-term implications: they are never dependent upon one single source of supply, which leaves them to starve if it fails.

The ecological situation is made even better by another factor. Possums are very faddy, with idiosyncratic tastes. At Ingleside there is a wide range of edible vegetation. Nevertheless, leaves which Snoopy preferred, even some which she said, with eloquent lip-smacking noises, were Absolutely Delicious, were treated with disdain by the others who were on my

n. For this reason I always had to supply those dependent on me for food - Snoopy, Kylie and Joey as young babies, and assorted invalids - with more food, human, but especially leaves, than they were actually going to eat. At Ingleside, the leftover leaves provided a useful supply of kindling for the copper, and the remainder were `recycled' by dumping them back in the bush, where they quickly broke down.

hands briefly, as invalids, and vice versa. Erik, for example, considered that common wattle was Absolutely Delicious, but Snoopy wouldn't touch it - not the flowers, not the leaves, not any part of it. There are about six edible varieties of eucalypt there, and the same situation obtained - some possums were crazy about one sort, others thought it was just all right, and went mad over another sort the first didn't think much of.

The distinction is carried even to parts of the same sort of tree - some will eat the flowers, others only the leaves - and even to the leaves of the same tree at different stages in their development, some preferring tender young tips, others the coarser mature leaves with their more pungent flavour.

Yet the whole range is edible. When an invalid first arrived, I supplied Snoopy's basic selection, and it was eaten, until the possum in question made its own current fads known to me. The same was true, with knobs on, as they say, with the human food supplied.

And `current' is very much the operative word. I must have spent a small fortune keeping up with Snoopy's fads. As soon as she persuaded me, by repeated appreciation and asking for more, to buy a large quantity of something, she would suddenly go off it entirely. As likely as not none of the others would want it at the time - only to develop an uncontrollable craving for it when it had nearly run out.

All this dietary delinquency, of course, reduces still further the chance of any natural food sources ever being eaten out, since it reduces the number of possums likely to be feeding on any particular part of any particular plant at any particular time.

Possums are essentially vegetarians, though they do, on occasion, eat meat, and catch and eat insects. Those I've reared would find the first two bits of meat Absolutely Delicious, but refuse the next. As always, a little of something is good, but not too much. Faddy as ever, it was some meats, not others. Snoopy was very partial to lamb, chicken and ham, but would rarely touch beef. None I've tried would ever accept fish.

Their small-time predatory activities were made known to me in a dramatic fashion by Joey, then in his most playful stage.

A big hairy spider, of the sort usually called Daddy Longlegs, had taken up residence in my room before Joey arrived. I don't like insects - or for that matter arachnids - quite frankly they give me the creeps. But this was a harmless, if unpleasant-looking character. It didn't build inordinate webs, and it disposed of stray mosquitoes and flies. So I decided to live and let live - or die. At night it sometimes wandered down the window in search of food, and one night I heard a loud bang on the flyscreen, and turned to see Joey eating something hairy, with a lot of legs. I didn't investigate too closely, but the Daddy Longlegs never reappeared.

I've no doubt that their occasional fondness for insects gets possums into unnecessary trouble with humans. I had a graphic illustration of just what mistakes can occur. One of the trees at Newport, one frequented by Snoopy as an adolescent, was stripped by caterpillar larvae. I went out one night to find Snoopy wading into the few remaining leaves with gusto, obviously in the process of finishing the stripping of the tree. Snoopy was Snoopy, so I went to take a closer look. Only when my head was actually against her side could I see that what she was eating with such relish was not in fact the leaves, but the larvae which were doing the damage.

3. Joey.

I didn't, of course, know a word of this when Joey first arrived.

Apart from having vague ideas about gum leaves, I didn't even know what he was supposed to eat. It was, however, pretty obvious that a baby that size ought to be on milk. For want of anything better I tried warm cow's milk, with a little sugar dissolved in it, so that the attraction was enough to offset the unfamiliarity. It worked, so it's what I've used ever since.

At first we tried giving it to him by soaking bread in it, in the hope that he would suckle. That didn't work, so in the absence of the traditional eye-dropper I simply spooned it in to him, drop at a time. On vague analogies with human babies, I gave him a little every couple of hours for the first few days (and nights).

By the second day he himself was starting to lap from the spoon, so I started giving it to him in an egg-cup, and he never looked back from there.

It was his great good fortune that, once he stopped dying of being lost, he was an extremely healthy, robust little possum, able to overcome any well-intentioned blunders on my part.

Once I realised the principle that he ought to be in constant physical contact with his `mother', I acted accordingly. He should still have been in the pouch for at least half the time. I didn't have one of those, so putting him under my jumper was the best I could do, and it turned out to be better than I knew.

I later knitted him a mohair sleeping bag, under the misapprehension that his mother's pouch was fur-lined. He did in fact come to accept it as his part-time mother. I shall never forget his look of dismay and horror one night when I tactlessly washed it and wrung it dry in front of him. He tried to snatch it away from me, and cuddled it desperately - I was wringing his mother's neck. In actuality, the first thought was best: the pouch is in fact hairless inside, and under my jumper, pressed against my skin, was a pretty good facsimile.

On about the third day he was on my lap while I was having lunch. I was eating a piece of bread. While showing his appreciation of his milk in the usual possum manner, he was, until then, always polite, his movements gentle and controlled. On this occasion, however, he suddenly went berserk.

The possum was asleep, but the nose smelt the bread, and went to it; the possum, being attached to the nose, perforce followed, and in a few seconds I had a pair of tiny frantic hands trying to open my mouth and take the bread out. Must Have, Absolutely Must Have. It was a complete contrast to all his previous behaviour, and totally unprecedented. Since then the only time I've seen that reaction, other than in possums, is in a certain cat who goes berserk in the presence of fish.

I was very dubious about giving him what he wanted, and canvassed the opinion of all present. Something which as yet does not have teeth has no business with bread, in my book. Nevertheless, he insisted, so I gave him a tiny piece to try. He gobbled it in ecstasy, and with not the slightest difficulty, so I gave him a slightly larger piece, about an inch square. He disposed of that with equal alacrity.

I took the hint, and decided it was time to put him on to

o. Potentially fatal in the case of other species. See Note 1.

solids. The bread did him no harm whatsoever, so the principle was established. I let him decide whether he was supposed to eat something or not - after all, he was the possum, not I. He was a baby possum, and so likely to make mistakes at times, but I was no sort of possum, and even more likely to make mistakes. To the best of my memory, his judgment never erred.

I found his tastes in fruit and vegetables by the simple process of offering them to him and seeing what he preferred. For leaves I initially tried gum leaves: the gums are dying out in this part of Newport, but at that stage there was still a good supply. I was lucky enough to hit on one of the sorts which possums eat for preference; the one people usually offer them first, the big smooth-barked angophora or red gum (the one with khaki green leaves veined with red) in which most holes suitable for possum nests occur, is edible but not particularly desirable; most possums eat only very young shoots and leaves. For the rest, I picked up clues from Joey himself when he was outside, and from the other possums when I saw them browsing. I didn't in fact need to bring many leaves inside for Joey, as he was very soon capable of supplying that part of his diet himself.

There are quite a lot of native trees and shrubs, of which I don't know the name, on the menu. One in particular somewhat resembles pittosporum, but isn't pittosporum - a weakling subject to rot, disease, and hence storms, and so in short supply, is highly prized by many possums. The main staples at Newport were casuarina (she-oak), of which they particularly favour the seeds and nodules in the leaves, cedar wattle when in flower, similarly the flowers of the cabbage tree palms (corifa australis), occasionally banksia, cheese tree (glycidion), probably alphitonia, and of, course, ficus coronata, sandpaper fig, almost the signature of the coastal rainforest patches from Sydney to Newcastle and a staple for all wildlife.

And, surprisingly enough, multi-coloured lantana. This is an imported weed, branded as noxious, and no doubt in excessive quantity it does, as it is supposed to do, ruin the bush. In small patches, however - say 10 ft. by 10 ft. - it has proved beneficial to the remaining wildlife in marginal suburban areas. Some of the species which survive do so because they have adapted to it.

Small birds, native rats and mice, and ring-tail possums make their nests in it. Larger possums use it as part of their tree-roads, and as a refuge in times of crisis, as do bandicoots: it's thick enough, and prickly enough, to deter the imported predators, while creating no difficulties for the locals, who are designed to travel through hakea and suchlike horrors, and the fact that lantana harbours ticks is particularly effective as a deterrent against human predators. Well-intentioned people have a habit of taking it out *in toto*, without first gradually introducing a substitute, leaving only bare ground - then wonder where the wildlife went. It's probably dead; nothing lives on nothing.

It is supposed to be poisonous - I myself am mildly allergic to it, and a scratch from a lantana bush is always likely to prove troublesome, so I've no reason to doubt that it is poisonous to human beings. Possums will not, in fact, touch the monochrome domesticated variety, beyond a couple of exploratory nibbles.

However, some of them certainly do eat the wild kind, often with relish - I can only suggest you ask a possum living in an area where it occurs. If it's poisonous to them, then it's one of those poisons like arsenic, which, if taken in small quantities from infancy, build up an immunity in the system of the animal in question. If the taste relates to the smell when they are munching it in the same way that that of gum leaves does - I've never been silly enough to try the same experiment with lantana

- then it is sweet. It is particularly beloved by young possums. Candy for the kids.

Joey made his own changes in the sleeping arrangement, too. My first thought was to put him in a box beside the bed. He cried and pleaded miserably, so I dangled a hand into the box and he went to sleep cuddling it. After a couple of nights, however, he simply waited till I was near enough to asleep, walked up the arm attached to the hand, and installed himself where he wanted to be: next to me.

I didn't actually want him in the bed - apart from sanitary considerations, I was worried that I might roll on him and suffocate him or squash him. But Joey, being nocturnal, had the advantage over me. He just waited until I was asleep, then re-arranged matters according to his own lights.

Finally I managed a compromise, leaving the bedcover so that he wouldn't be exposed to the light, and putting him under it, above the tucked-in bedclothes, giving him an arm for company. That way I couldn't roll on top of him. That arrangement lasted for a little while, but little possums grow very quickly, and it wasn't long before he was awake for considerable periods when I was asleep. And put himself to bed when he chose, where he chose - in the bed,

In fact the dangers involved in my rolling on him were fairly minimal - something designed to be in its mother's pouch while she squeezes through an opening two or three inches high is fairly unsquashable, and capable of worming its own way out of difficulties if it finds itself short of air.

I'd got one of those animals-in-captivity things, so as soon as Joey was moving around under his own power, I started to leave the window open. The window proved a great attraction: like cats and dogs who prefer to lie in doorways, Joey thought it was a very good place to be; he could see out and smell out, and make short expeditions up the window frame, but always had a safe retreat close behind him.

A week after he arrived, he disappeared while I was asleep.

I was pretty sure the Jenny was his mother, and she had been calling in every couple of nights for a bite to eat. It seemed possible that she had taken him back. But at that stage I didn't know where to find Jenny, unless she herself appeared at my window, and it was just as likely that he'd strayed too far himself.

I was frantic with worry and searched for him everywhere I could think of. There was, of course, no sign of him during the day. I went all round the place the next night, calling him. He'd already seemed to show signs of `answering' to Joe-Poss, though I couldn't be sure, but for lack of anything better, that's what I called. Finally I arrived back at the tree near the house, beneath which he'd made his first appearance. Nothing was to be seen.

I waited and called, and after a few minutes four and a half inches of baby possum came creeping down the tree trunk, down my arm and on to my shoulder.

Whosever baby he had been before, Joey was sure he was my baby now. I don't know whether or not it's significant, but when he first arrived his eyes were not properly developed. He was blind. After a couple of days his pupils developed, though his vision wasn't completely coordinated, and I had to be very careful to keep him out of bright light, except for short periods. By the time he disappeared he'd become thoroughly accustomed to my smell, and I was the first mother he actually saw.

`HOW TO After that I started trying to find out about possums in TELL earnest. Although I suspected, I wasn't in fact sure that he was a he.

BOYS FROM GIRLS' There was no penis visible - actually it's internal, like that of a cat, when not in use - but there was a little white hairless heart-shaped sac underneath, higher on his body than the testicles of a cat, about where you'd expect his navel, if he had one. In my current state of knowledge, while I suspected it was a testicle sac, it could have been anything from a pouch to a malignant growth. So I rang the Australian Museum and got on to a very helpful gentleman (whose name, unfortunately, I didn't catch), and he set me straight.

In fact, once you know what to look for, it's very easy to tell a male from a female if you get a close view, but for a distant view there are only pointers.

Males tend to develop red patches on the shoulders and between the shoulder blades from the time they are about seven months old, conspicuous by the time they are about two. These spread still further as they get older.

But possums vary greatly in colouration. All are light coloured, ranging from golden cream through dirty brownish or greyish cream to silvery white underneath, with the vertical brown stripe from the chest scent gland developed to a greater or lesser extent according to the possum. The main colour is given by the coat on the dorsal side, which combines both woolly fur and hair, and this varies markedly: even in the small pocket at Newport, there were: those with dark grey, silvery tipped fur, with contrasting black face markings, belonging to the Jenny-poss line; the russet toned creek possums, with their lovely golden babies, Foxy's people; the very light, pale grey of Sally's long-snouted family; and the light, almost cream coloured possums with snub features, like Mrs. Poss's attendant male, Grandpa.

The red patches, even when small, show up very well on a male of the Jenny-poss line, but tend to get lost in the general redness of Foxy's mob. And possums do vary their colour slightly from time to time, perhaps the effects of seasonal food, perhaps from hormonal activity. Females, too, sometimes develop gingery patches, particularly on the forearms, near the wrist with their `cats whiskers'.

Moreover, possums come in big and small - size, particularly of feet and hands, is something of a guide to age, but unless you know whether the possum in question is intended by nature to be a large possum or small possum you can't be sure. In females, the pouch is simply a slit in the skin, invisible under the fur, until it becomes distended by the presence of a baby.

The upshot of all this is that a smallish grey possum in the distance could be either a small adult female or a yearling male.

Movements can also be a guide. The males retain a lot of their baby agility, which the females, hampered by babies, lose, and many males also retain their love of gymnastics for their own sake. They also tend to sit in positions which would be uncomfortable for females with their pouches distended, and which older females, therefore, by habit tend to avoid. But again an agile young adult female, who has had only, say, one baby, or none at all, can perform in the same manner as a male.

Behaviour, particularly towards humans, can also serve as a

p. Indeed at one stage in later years a near albino male, Spectre a full-grown adult, totally white except for a few black spots, like a Dalmatian's, did appear in the area and stay for several weeks - the extreme caution which had allowed him to survive babyhood still applied, and despite the fact that you ought to have been able to spot him a hundred yards away he was as invisible as the rest, except when he wanted to attract attention.

guide. While baby males <u>tend</u> to be more timid than baby females, adult males seem more prone than females to venture out before it is properly dark, and more forward in their approaches to humans. They have to be. A fairly common house-feed situation is for the male to come first, get his share, then hastily retire to a respectful distance when Madam appears. If he wants his quota of goodies, he can't afford to be too diffident with humans, and when he moves on to the next place he carries with him the lesson already learned. Even if the same situation does not apply there, it comes in handy for cadging an extra share. But who comes first really depends more on who lives closest than on gender. And plenty of females are also willing to come out a little before dark, and make confident approaches to humans.

To make matters worse, in youngsters the undeveloped sexual organs are very often hidden by the fur, even on close inspection. But with adults, one good look at the underside leaves you in no doubt. An adult male is as well developed for his size as a prize pedigreed bull.

JOEY'S Until Joey's advent, I had always considered possums as

CHILD- mindless, indistinguishable balls of fluff - pretty things, which made a

HOOD nuisance of themselves at times, but for the most part just didn't count.

Probably about as intelligent as birds, certainly not in the same range as dogs and cats.

I couldn't have been further from the truth, as Joey soon Ability of even demonstrated. This isn't the place for Joey anecdotes, but there is babies to one, I think, which might serve the purpose and interest the experts. Joey at this stage was still, in human terms, a toddler, but reason insatiably curious and adventurous, and one night, after playing on the hypowindow frame, scrambled up on to the roof. Had I known more about possums I might have predicted it - babies are always at risk from cats thetical and owls, but on the whole a roof is a fairly safe place to play. Ours sequences: is used for that purpose by youngsters and adults alike. But I didn't `If I go know.

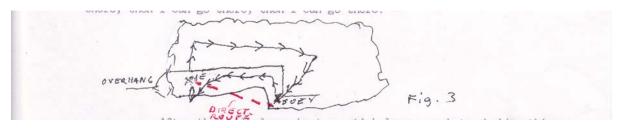
there, I heard Joey go, he made a bee-line for the centre of the roof. then I can I hung out the window and called him. He once again made a bee-line, but go there, this time to a nearby projecting part of the roof, the only place from then I can which he could see me directly.

go there.'

He tried, as baby instinct dictates, to come straight towards me, but met with empty air, and the jump was far too long for him at that stage. He grew very distressed, calling me frantically, and grew just as distressed, calling him. Once he'd seen me, I didn't dare go away to get a stick long enough to reach him, so he could climb down it, in case he panicked and ran off the wrong way.

Quite suddenly, he stopped crying, turned, and deliberately trotted away from me, out of sight, back along the roof on a kind of jagged hypotenuse to his triangle, to a point immediately over my head, then leant down over the overhang, where I could touch him with my hand, and came back down my arm to my shoulder.

There was no way he could have known this route home, other than to reason the situation out for himself. There was no regular possum route along that part of the roof at that time, and his own scent trail, supposing he had been old enough to lay one, was at an angle to his route back. He must actually have though in a short causal sequence: `If I go there, then I can go there, then I can go there.' `` xv



After that, I always kept a stick long enough to bridge this gap handy, and he had no qualms about climbing down it, then down my arm and on to my shoulder, when he wanted to come in.

I found out later that Joey was by no means exceptional - he was bright, as he had to be to survive my blunders. But possums generally are quite capable or working out long concatenate chains of actions, particularly those involving manual dexterity or locomotion, to get what or where they want. Though how this could be demonstrated under laboratory conditions, I can't see.

I well remember a fellow undergraduate, who was working with possums, complaining, `But all they do is sleep.' I've no doubt that that is precisely what any possum, pragmatists that they are, would do if caught and caged. If it was one that was doing well in its own world, it would, once it found it couldn't escape, fret, and, because there is no other behaviour pattern for it to follow - it hasn't the space to do so - finally curl up and take refuge in sleep in despair. If it was one that had been having a hard time, it would think all its Christmases had come at once - a good safe place, with food provided - it would go blissfully to sleep in relief, for sleeping in comfort is a positive activity with a possum. The only sort of possum who'd perform under such conditions would be a youngster, particularly a male, used to showing off to humans for applause and food. Who would therefore be `a-typical' anyway.

GAMES

Joey certainly `performed'. Inside and outdoors he invented game after game, each designed for the particular physical circumstances under which it was played - the particular tree, particular branch, the bed, under the bed, the window, the window ledge, the door-posts, the wardrobe, etc., etc., etc. I hadn't the foggiest notion what sort of games little possums were supposed to play, so I let him invent his own, and joined in where it seemed appropriate.

The games he invented were pretty much the same as those played by kids of any kind - preparation, so they say, for adult activities.

Outside, it was chasings, tipped-you-last. He'd come racing down the tree to me, I'd touch him lightly, and he'd take off, only to come racing back to me, to touch or be touched, and take off again.

That one developed out of my taking him out and putting him in a low tree, later sending him up one under his own steam. He'd go up the tree and come straight back to me as soon as I called him, extending my arm up the trunk so he could walk down on to my shoulder. But it wasn't long before I wanted to go back inside before he wanted to come down, and called him before he was ready; and it wasn't long before he was making short expeditions of his own, only a few inches at first, then becoming frightened and running back to Mummy to be reassured and recover his confidence, then go again. With both working together, the pattern developed, racing away from me, then racing back again to formally fulfil the requirements of duty and safety by a tiny touch, then off again.

Once the pattern was established, however, it became, quite

simply, a game - played for the love of it, with totally unnecessary and extravagant movements, unwarranted gymnastics for grace notes, variations developed for pure enjoyment. The finished product, the game of chasings, also presages adult activity: possums, particularly males, are forever being chased away from something desirable, usually choice food, which they can only catch in the end by lightning expeditions.

There was one particular situation in which he loved to play this game most - a treefern, bent over nearly at right angles, so that when I stood beside it I, the treefern and the ground formed the letter `D'. I'd used it as a trainer for his first tottering steps, because it was conveniently at shoulder height. Later Joey would race around the `D', up the treefern, down its slope, on to my shoulder, down me, across the ground, up the treefern, faster and faster until he barely touched the surface, skimming lightly over it, in places actually flying, taking off from half way down the slope of the treefern, barely touching me and glancing off, sometimes not even hitting the ground before landing back half way up the treefern again. Or, for the sake of variation, he'd go the other way, up me, up the treefern slope, down the trunk, up me.

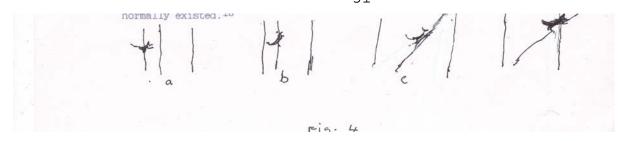
As his speed increased towards the point where he became airborne, so did his excitement and his involvement with his own game. By the time he was actually flying in a circle, touching at only two, no more than three points, he was completely immersed in his own world. One night the inevitable happened.

One of his hind feet caught me across the face as he flew past - I shut my eyes reflexively, and his two big hind claws cut me across the eyelid and under the eye. That happens to be a part of the human anatomy which bleeds like the proverbial stuck pig at the slightest provocation. There was blood everywhere, and I was terrified by what had nearly happened.

Joey was horrified, he nearly died of remorse. He licked me, and pleaded with me to be all right, and did everything he could possibly do to undo his crime. What's more, I, who was supposed to protect him from harm, was now injured and so his protector was unable to protect him. He was so deeply, and so desperately distressed, that in the end it was I who had to comfort him.

He also played other games - war games, exploration and gymnastics on the window inside, hide-and-seek, gymnastics in the trees outside. Hide-and-seek also developed from `real' to a game, the final form of which foreshadowed adult activity: incidents where I temporarily lost track of him and had to look for him became ritualized into a game, with Joey disappearing completely into the foliage and me trying to spot him. If I didn't spot him he would eventually re-appear aloft, dangling and waving his hands to attract my attention, `Yoo-hoo! Here I am! Fooled you!'

One other activity, in particular, which started by his seeing the potential in a happy accident, ultimately became a game which foreshadowed a useful adult skill. He discovered that pliant, resilient stemmed plants such as raphis palms moved horizontally as well as vertically as he moved his weight from bottom to top, and so could be turned into a temporary bridge across a gap where no such connection normally existed. *vi



DEVELOPMENT At first I'd simply send him up a tree near the house, let him play or play with him as the case might be, and wait until first I, then later he, decided he'd had enough for the night. As he grew older, however, he became more reluctant to come when I called, and more prone to make his own decision on the matter: he'd make a feint down the tree and touch me, ritually fulfilling his duty to come to my call, then shoot back up the tree before I could collar him. In the beginning, he confined his activities to the tree I put him in, but then he started to explore the tree roads to adjacent trees, which was how I first learnt about them.

In due course I got a bit sick of freezing my backside on the cold, cold ground for up to four hours a night, first under one tree, then under the next, until Master Joey had finished the business he had evolved for each and every one of them. Joey was a very capable little fellow. There wasn't actually very much I could do if he ran into trouble with Another Possum, twenty feet up a tree, in any case, except try to mitigate the attack by distracting the stranger with a torch, and trying to lure it away with food. Joey's own mother would have intervened with force, I could only use bribery.

Now that worked very well as long as he was near the ground. The Other Possum was quite happy to be bribed - one ill-mannered youngster who needed to be put in his place was just another one of many. The attack wasn't serious, and a chance at a bit extra to eat was far more interesting. And Joey needed no `lessons' to get the idea. As soon as the Other Possum started to come towards me, he'd extricate himself from the position he was in and go to a branch where he could reach my outstretched arm and be collected while the stranger was busy eating. Later, when the attacks were becoming a little more serious, he'd shoot off into the bushes as soon as the Other Possum's attention was distracted, and stay hidden, from me as well as everything else, until after the stranger had finished eating and departed.

But when the exchange took place high in the air, the technique didn't work. The lure of the food was not so immediate to the stranger - it would have to come a long way with some effort to get it, so it would finish its immediate business first, namely the chastisement of the youngster.

And I began to realise that such attacks were not, in fact, as murderous as they appeared, and that Joey was becoming expert at extricating himself from difficulties. They were in any case rare, the product of chance encounters, once I knew, and Joey knew, which trees the others favoured, and avoided them. I cannot overstress the fact that possums are solitary by nature. They were interested in the baby only when he was in my room, getting treatment they considered desirable. That was a situation to be investigated, to see how they might get in on the act themselves. But a baby at a respectful distance in a commonplace tree had no such promising significance.

Given all this, I began sending him up a tree near the house, staying with him till he settled in, then going back inside. He was within earshot, so that I would be bound to hear any real trouble, and could race

out and interfere to the best of my ability. So I got into the habit of parking him in a tree by himself, for half an hour or so, then going out to get him.

At first he was always in the same tree when I came back, but very soon he again started moving to adjacent ones. And when I went out for him, he was nowhere to be seen. At first he'd come almost as soon as I called, waiting only long enough to make sure that there was no danger I hadn't noticed - we both soon learnt by experience that he could spot things far better than I. Gradually, however, he took longer and longer to show up, then suddenly, after an hour or so, appeared high up in the tree where he'd been hiding motionless in the foliage all along, as pleased as Punch with himself, dangling and Yoo-hooing. He seemed to think that it was part of the game. Whereupon I would sit down and keep track of him, by ear or eye, until his lordship did deign to come down. The ability to hide, for hours if need be, is another prime prerequisite for an adult male.

In time, this arrangement developed into taking him out, leaving him, and coming back to check every so often to see that he was all right and whether he wanted to come in, then leaving him again till later. Gradually, it became clear that he $\underline{\text{was}}$ all right, except for thoroughly noisy emergencies. He spent longer and longer alone, till my visits, which were welcome at first, and then quite obviously started to be a nuisance, finally became rare treats. Then he would proudly show me what he'd found in the meantime, what new gymnastics he'd managed to invent for which combination of branches – his achievements, in fact.

I had always taken him round the nearby trees on my shoulder, letting him investigate them, sniffing the trails of other possums, going up them if he wanted to, to get his bearings before parking him for the night. On one occasion we met one of the russet-coloured creek possums in a small tree near the cedar wattle, and she had with her a youngster Joey's own age. I thought it would be a good idea to give him a playmate - whatever I could do in that respect would hardly be as good as one of his own kind, a real live possum to play with. So I sent him up the tree where the youngster - Foxy? - was already playing.

They took no notice of each other whatsoever. Each happily played its own game with the tree. The mother watched suspiciously from a short distance away.

I left them together, keeping a watchful eye on proceedings, and eventually Joey finished his game and came back to me. I thought perhaps they were just shy, and moved him closer to the other youngster, and so closer to its mother. When he got too close, the mother repelled him quite mildly, in fact, but to both our inexperienced ears it sounded as if murder was intended, and we beat a hasty retreat.

One night after I parked him in the trees near the house, he vanished altogether. By this time I knew that the comparatively huge cedar wattle was a favourite possum place, so when all else failed, I tried there. Sure enough, down came my possum. Thereafter it became his favourite tree, and, if he were chased, or explored further, he'd come back to it to meet me.

It was in fact the best thing he could have done. Up to that point, I could, in the last analysis, have reached him with a ladder in a real crisis. But the cedar wattle was forty feet tall, nothing in terms of the Ingleside trees but a pretty fair size for Newport ones. The `instinctive' direction for safety for a possum is up, and Joey was obeying this `instinct' by finding himself the biggest tree he could and going right to the very top. As I don't happen to have a tame fire-engine, this move effectively put him beyond my control. It marked a crucial point in his

development.

Half a dozen possums could have disappeared into that tree without any sign of their presence, and two or three often did. While Joey could learn certain of the necessary lessons about how to be a possum while still under my protection, there are other important things, matters of `etiquette', which are not innate and can be learnt only the hard way, from Other Possums.

All I could do under the new circumstances was to sit anxiously under the tree and watch, till dawn if necessary, and collect the body when it came tumbling down. In time I got to know that tree, by sight, but more importantly by ear, almost as well as he did, and after a while I could follow his movements, and those of any others present, unless they made a deliberate effort to conceal their presence.

Joey learnt very quickly. At first he regularly came hurtling down through the air from the tree-top, but he soon learnt to exploit the natural ability of young possums, even more than adults, to stay hidden, disappearing completely. I could usually spot the other possums before I spotted him, and he was always the last to come down. He would stay hidden for at least half an hour after the last one had departed, before he ventured to break cover.

Of course the other possums had a say in matters, too. Having discovered that I would buy them off with food to distract them from him, they started coming to me on the off-chance, which was not what I wanted as far as he was concerned. Time after time Joey would put in appearance aloft and start to come down, then Another Possum would suddenly appear out of the bushes, get some food from me, and, despite my best efforts to head it elsewhere, take it up the cedar wattle to eat. Whereupon Joey would promptly disappear again. The stranger would pursue its own business with the tree, which took anything from ½ hour to 2 hours, then Joey would wait another half hour before starting to come down again. Even then, as he got older, he would still sometimes come down to just above my reach, sit with me for a while, then change his mind and go back up again.

It became apparent that my presence was likely to attract, rather than repel, Other Possums, and at the same time evident that he knew what he was doing, and didn't in fact $\underline{\text{want}}$ my presence, except for company once in a while, $\underline{\text{if}}$ he were in the mood. I fell back into the previous pattern, letting him go where he liked, when he liked, coming out for him only if he seemed overdue, or for an audible emergency.

All in all, I saw a lot of that tree, and the possums who used it. Joey was always the last to come down - or intended to be. Whenever he finally came down to me, his sparkling eyes, and every muscle in his body, showed me how proud and delighted he was with his achievement, fooling the others completely and getting back with his fur intact. But one night, after everyone else had finally gone, he was coming down the trunk, pleased as Punch with himself, and I was congratulating him as he came - he always liked to have my approval - when, from above, down came an adult male who forthwith proceeded to jump upon him. Joey was a canny little male possum, but the world also contains canny big male possums. Joey took off into the bushes, to return a considerable time later.

While all this was gradually developing, another aspect of his independence was developing simultaneously. After he vanished a week after he arrived, I decided to make sure he knew his way home, in case of a reoccurrence. I had used the window as a short cut in and out of my room as a child, so now I left it open when I took him out, and used it when I brought him back, leaning a beam against it so that he could climb from the ground to the window himself.

I then started establishing a definite route back to the window. For the first three nights I carried him on my shoulder, stopping outside the window and putting him on the bottom of the beam, then climbing in myself and calling him to follow. At that stage, having lost his Mummy twice, there was nothing he wanted less than to lose her again, and he had no hesitation about coming. Thereafter I made him walk home, at least from that part of the grounds where the route we were establishing connected up with those to all the other possible places to which he would want to go.

Like Snoopy after him, he would, of course, scamper at my heels like a little dog - or a baby possum following its mother. Once I discovered this, I made a habit of literally taking them for walks, so that they'd know the way back, at least until their begging and pleading persuaded me that they were tired, and wanted to be picked up. Joey would jump into my arms; Snoopy tried, but couldn't, so she just put her arms up like a human toddler to be picked up - as long as she was with me. As they got bolder, they would start to take the lead, waiting for me if I showed signs of being left behind, pointing out to me, with nose and eyes, anything of particular interest they'd discovered, looking and sniffing, first at it, then at me - `Look! Look what I've found! Isn't it good? Isn't it interesting?'

The only disadvantage of the system is that it establishes ground, not tree routes. I had to leave it up to them to replace ground with above ground when they were physically capable of doing so.

Joey learnt the way home after he'd walked it about three times, and started to take the lead when we were on the home stretch.

One night, when he was still quite small, I had him parked in one of the trees not far from the house and he apparently got tired of waiting for me to come and get him. He appeared in the window of his own accord. I still went out to get him, there was no abrupt change, but gradually he came back by himself more and more frequently. And he also started to go out on his own, so that by the time he was about four months old he was going out and coming back himself. Even so, I still went out if he became overdue, or if there was too much disturbance.

By a fluke, and for totally different reasons of my own, Joey's growing independence followed that same pattern as that I later found to be the case with babies in the house-group and Kylie's children at Ingleside. At the time, it was pure good luck, not good management, and I can't pretend otherwise; the only virtue, if such it was, on my part was to come to the situation without preconceptions, and let Joey himself take the initiatives. Even the occasional maternal surveillance when the baby is old enough to do most things for itself has parallels.

In the meantime, I had tried to house-train him, with little or no success. At first I tried smacking him, and rubbing his nose in his droppings, to no avail - of course, all he got was his own smell, which is the reverse of unpleasant to a possum. Then I hit on the idea of using a mild version of the punishment meted out by possums to impudent youngsters. At a time when he was being thrown twenty feet out of a tree by the others, I started throwing him four feet out of the window into a lantana bush whenever he started to lift his tail.

He understood that I was angry, and that distressed him very much, but it didn't improve matters from the sanitary point of view. Finally, I tried shutting him out the window - `Go away, I don't want you if you do things like that.' I did it only twice. The distress it caused him, as he scrabbled at the window, begging and pleading to be let in, is something I don't like to remember, just as I don't like to remember Snoopy's on the rare occasions when I had to use such extreme measures with

her. It really was the worst thing I could do to him. The punishment was out of all proportion to the crime.

After that I pretty well gave up. There is no natural behaviour pattern in possums that you can utilise to house-train them, as there is in a dog or cat. Joey, baby possum that he was, was pathetically eager to please me an win my approval in any way he could, but he just didn't understand. The action is performed unthinkingly in a healthy possum, without really noticing it. Possums are browsing animals - they graze and defecate frequently, in small quantities, like a goat or cow. Terrestrial predators such as dogs and cats have an interest in the disposal of their own waste - they don't want to draw attention to their presence by a pungent smell that will frighten away their prey. To a possum, forty feet up a tree, what falls on the ground below doesn't make much difference. Terrestrials can't get it up there, anyway.

The problem in fact ameliorated itself as he became older: he stayed out most of the night, and when bad weather or inclination kept him home, he tended to relieve himself while sitting on the window, so that the mess was confined to one area, if not eliminated.

As he gradually became more independent, he made his own changes in the sleeping arrangements. First he moved under the bed, a boxed-in divan with a single opening and no drawers. After a few nights he decided that wouldn't do, and shifted to the darkest corner on top of the wardrobe.

He had, from the time he was able, always taken a great interest in the wardrobe when in his exploring mood. He gained access to the top of it by skimming up one or the other of the door jambs, with the door closed, so that he was climbing something not much more than ¼ inch deep. He then proceeded sideways, across the token lintel, also ¼ to ½ inch deep, one hind and one fore foot working together, twisting his body like a contortionist, so that his face, at least, and the uppermost part of his torso, pointed towards the wardrobe. Finally, he jumped the last foot across the empty air, taking off from a position which gave him only the barest minimum thrust against the wall. Now that his nest was up there, he paid particular attention to the bottom of the jambs, chest-marking them vigorously, and very frequently, almost every night.

The sleeping arrangements were not, however, immutable. He usually woke me when he came in, sniffling in my ear and kissing me, anxious that I should come to and acknowledge him before he went to bed. Sometimes he got in with me for a while, sometimes he went up on to the wardrobe straight away. And there were still nights when I woke up, lying on my back, with a possum stretched out full length on his back, between my arm and my side, his head pillowed on my shoulder, blissfully asleep. And not the slightest idea how he'd got there without waking me.

At this stage we tried to persuade him to live outside. My father constructed a highly suitable possum box, and put it up one of his original trees, near the house. The tree at that stage belonged to no one except Joey, and the box, as after events showed, was indeed a very nice nest. It was an old fruit-case, with an extra piece of wood to reinforce the floor, projecting in the front to form a small balcony for the necessary reconnaissance a possum makes before leaving its nest. The top, bottom, sides and back were waterproofed by covering them with several layers of very heavy duty plastic, with a projection at the top to give shelter for the front. There was a stiff sliding panel in the front, left so that only an easily defensible entrance, about six inches wide and a little higher, was left at the end. The box was firmly attached to the branch, about six or eight feet from the ground.

Joey simply wouldn't have it. He thought it was fun to explore at first, but when it came to the question of sleeping in it, nothing could induce him to co-operate. I tried putting him in there during the daytime, staying with him, leaving it for him to work out for himself, everything. He just became so distressed that I had to relent, and take him inside. It was a very nice nest, but he knew a nicer one inside, and, possum fashion, he wanted the nest \underline{he} chose, and so knew to be safe, not the one somebody else selected. Thereafter, when he was in that tree, he avoided the box.

His attitude to me was always the same - loyalty, affection, respect, eagerness to please, invariable politeness, and he demonstrated his love by kissing and cuddling me, even after he himself had assumed the more sober behaviour befitting an adult gentleman - meditation instead of play, more dignified movements instead of gymnastics.

Even so, he was very much a possum. One day I stupidly woke him suddenly, when he was in his own nest on top of the wardrobe, bringing my hand down from above and behind to pick him up, the direction of a bird attack. Not properly awake, he reacted by reflex, swinging round and biting me. He was, of course, appalled when he realised what he had done, contrite and remorseful in the extreme. But the fault was mine.

He did, however, discriminate between his humans. He liked my parents, and was always careful with his claws when handled by, or handling, them - he'd walk up their bare arms and legs too - and he enjoyed their applause and admiration. When he was a baby, he occasionally took a short nightly walk with one of them if I were sick.

But he recognised only one mother, and only one authority. At that time I was working in the city, and occasionally had to take night shifts. When I did, Master Joe perforce had to stay inside until I got home. My mother gave him his dinner, but if she delayed too long for His Highness' liking, he would march out into the kitchen, stalk up to her, and very deliberately nip the big toe of her right foot, as a reminder. She was just the hired help.

As he got on for five months old, it became apparent that he was growing up. His behaviour was becoming more sedate, he came and went as he pleased, and often stayed out all night. He also began to attract more and more hostile attentions from adult possums, and he developed a mannerism, apparently to comfort himself.

As a baby he had never attempted to suckle from me. In fact, when I offered him milk on my finger when I first picked him up, he bit it instead, fastening on with a bulldog grip so that I was trapped for several minutes, finger in the air with four inches of baby possum suspended from it by his jaws, and no way of detaching him without hurting him, until he finally got tired.

But now he started to knead me with his nose, any soft part of my body he could get access to. When he came in at night, and, as he always did, checked to see that I was in bed, he now started to announce his presence by kneading whatever part of my person was available. I tell you, you ain't lived until you've been woken suddenly in the middle of the night by an icy cold, pointed possum nose abruptly thrust into your armpit.

Fortunately Joey, though knowing me for his mother, had never been too sure how far my person extended. As a tiny baby, he simply couldn't see all of me at once, and his consternation the first few times he saw me take my clothes off to go to bed would have been funny, if it hadn't been so serious to him. So now he also started to knead my discarded clothes, and then, ultimately for preference, the pillow; by making them easy for him to get at, and myself harder, I assisted his preference along. As things got tougher outside, he spent more and more time with the pillow,

kneading it for hours on end.

As he reached the critical six months age, he became more and more affectionate towards me, and more and more unwilling to go outside. If I took him out, he'd go up the tree I put him in, wait for a few minutes to fulfil his duty to me out of politeness, then come down and head for home.

I knew what the situation was - the mating season was in full swing outside - and indeed I didn't want him to be chased away. I hoped that if we could survive the mating season, he could remain as the resident male. So I didn't push him, though occasionally my conscience got the better of me and I took him out for a while and stayed with him, as I had done when he was a baby. Then left him, and after a very short time he'd be back inside. He was, at that stage, even more affectionate towards me than ever.

He did, in fact, weather the worst of the mating season. Then one night, in April 1970, seven months almost to the day from the time he appeared, I took him out as usual and left him in a tree near the house. He had been particularly unwilling to come with me that night, but I took him out, anyway. And he didn't come back.

That was the last time I can say for certain that I saw him. There was no disturbance that night, no possum fights close at hand, nothing to give any warning. He simply vanished.

Needless to say, I was frantic. As far as I was concerned, he'd given ample evidence that he didn't want to go, in his behaviour towards me, and in his reluctance to so much as poke his nose outside. I was sure something terrible had happened to him. And there was a new male, Butch, camped outside the window opposite my room.

I searched everywhere, all over the property and the neighbouring properties. I advertised, and responded to every call that came.

 $\,$ At night I went round and round, calling him and whistling him. I found a lot of other possums, but not Joey.

Or perhaps I did find him. All the Newport possums drink, but only in small quantities. Even when Joey was weaned, he still loved his milk, so he still got it, together with water and whatever of my weak coffee he could cadge. Knowing this, I worked out that he would have to go to the creek to drink. When I had exhausted the possibilities downstream, I took up position one night above a small waterfall, just inside our boundary and near another house where possums were regularly fed, the house where I found Jenny being courted by two males simultaneously. From experience, I took a sleeping bag, and settled down to wait.

I was actually dozing when, sure enough, a young male came down to the creek to drink. He collided with the sleeping bag, then marched straight up it towards my head, just as Joey always did, by this time automatically, on the bed. I sat up to collect my possum and spoke to him, relieved. And he took off. His reaction was not the same as the usual temporary panic of a startled possum. I can only describe it as one of horror.

He was a young male, in all respects identical to Joey - who was, of course, a perfectly formed young male without any distinguishing marks or injuries - and different from another grey young male I'd found in the same vicinity, a Sally type. At the time, I concluded that it couldn't have been Joey - perhaps it was the mysterious twin that the book assured me he must have had. In the light of subsequent events, I rather think it was Joey.

Meanwhile, I found possums galore. Joey had known his name, or rather that a particular call-note of mine was meant for him, so I went

round calling him. When, in the course of my searches, I found it necessary to corner a possum for identification purposes, I gave it some food by way of apology. Apologies were always accepted with alacrity. And when I passed that way the next night, the same possum appeared in answer to my call, and the same thing would happen - I'd feed it to get close enough to identify it.

The fact that Joey knew that `Joe-Poss' meant him, exclusively, didn't prevent every other possum in the vicinity from answering, once there seemed a chance that that sound meant food. Furthermore, they were only too delighted to learn by each other's experience. At first I'd find one possum in a particular place at a particular time, then when it returned the next night, there'd be another sitting nearby, watching. Naturally, I went to look at it, and made suitable apologies for disturbing it when it turned out to be another case of mistaken identity. The next night there'd probably be yet another.

At first I was delighted. The more possums that came to me, the greater the chance that Joey would be among them. But he never was.

And finally, I began to realise that I was being conned. By that time I had developed a regular nightly round. They had trained me to appear with food at a certain time, in a certain place, convenient to them and easily reconcilable with their own nightly routines.

So I dropped the `Kimmon Joe-Poss', and just whistled.

NAMES & I gave them all labels, for my own convenience. Most of them, LABELS in fact, would come whatever I called them, as long as it wasn't late-for-breakfast. But some actually did know their names, or rather that particular call-note was meant for them: Joey knew `Joe-Poss'; Snoopy knew `Snoopy', or `Snoop', and responded to the words even without the calling intonation - she also knew her other pet name, reserved for use in private, in sleep rituals and greeting rituals; Foxy knew her name, and also `My Fox; most surprisingly of all, Mephistopheles knew `Meph', although he must have had half a dozen such names in his life. The rest, including Jenny, did not.

There isn't time to talk about all of them, but I'll talk about a few, who have some bearing on Snoopy's story.

The first false alarms were provided by Jenny, who, as I

TWIDDLY mentioned before, was identical to Joey in appearance. A couple of nights after Joey vanished I found her just outside, with a young grey lover - not Joey, but with two such similar possums rapidly changing places, they were enough to keep my attention until I was sure of the identification. They were also the first pair of possum lovers I had seen, and beautiful enough in their own right to make me want to watch them.

At about the same time, there was a terrible to-do in her nest in the roof. It sounded as if a young possum was being murdered. Finally, I moved a board inside the house a little, and looked. There was Jenny, with her new, even furrier baby. His squawks, as we later discovered, merely meant that Jenny was washing him, and he objected to having his bowels cleaned out.

Later we heard him at night, crying for hours in the roof. I knew where Jenny was - over the hill, being courted by two red-patch males at once. With much trepidation, and mainly just to make absolutely sure it wasn't Joey who had somehow persuaded an Older Woman to accept him on that basis, we looked in.

By glimpsing the different parts of the baby one at a time, we eventually established that he \underline{was} only a baby, but certainly as old, probably older, than Joey when he first demanded bread. So we gave him a tiny piece of bread to console him. Jenny would have known, of course - in

later times even I could tell where Snoopy had been by the smell of distinctive leaves on her breath. We were worried that this might make Jenny reject him, as per the book, but in fact it did nothing of the kind.

We realised only years later, after Jenny had raised Snoopy in conjunction with me when she couldn't feed her, and subsequently attempted to dump two more awkward babies on my mother, that Jenny thought it was an excellent idea. From Jenny's point of view, we were in a special relationship to her - we thought she lived in our roof, but she thought we shared her nest. Once I'd raised Joey successfully, and showed that I was a trustworthy person, she was only too pleased for us to keep an eye on her babies for part of the time, while she went a-courting. She couldn't have taken the baby with her into that imbroglio, anyway. So, if she were going at all (some mothers simply miss a season under those circumstances) she had to leave the baby in the nest - with baby-sitters. Conned again.

I labelled the baby Twiddly, for Tiny Wee Little One. My mother, with a despairing glance at the ceiling near the nest, decided it was a good generic name for baby possums in general. Adult possums don't normally foul their nests unless immobilised by illness or injury, but babies are babies, whatever the species. There is no standard soubriquet for baby possums, like joey for baby kangaroos, so twiddlies they became.

Twiddly, par excellence, was therefore a very spoilt baby. All little possums have to be left alone by their mothers at times, but not all little possums have baby-sitters. He behaved accordingly. I've heard performances from babies who don't want to be washed, but he really took the cake. He carried on as if Jenny were eating him. And his lungs were excellent.

Once he came out on her back, his formal birthday, he was only too delighted to make my closer acquaintance, and Jenny, provided she could see what I was doing, was quite happy for me to make friends with him. He readily came down on to my shoulder, and even let me go for short walks with him still aboard. On one occasion, however, I did something very stupid.

He was so furry that I didn't in fact know where he was a he, so I finally decided to find out for sure. I picked him up and turned him over to examine him. He struggled and screamed as if I were skinning him alive. The more he squalled, the more panic-stricken I became. I didn't dare let him go while he was terrified, for fear \underline{he} would run panic-stricken into something he couldn't handle.

Jenny, who was sitting up a tree behind me eating, at first ignored the whole performance. But when the baby continued to yell, she became worried. Jenny didn't normally like to be touched by humans, but finally she grew so agitated that she came down the tree and jumped on to my back.

Fortunately, I had the sense to just keep on doing what I was doing. She peered anxiously over my shoulder, then gradually relaxed. Eventually, she gave a snort of disgust, jumped back up the tree, and went on with her dinner.

She knew her own son, and knew, better than I, how prone he was to carry on over nothing at all. She probably thought I was washing him.

Twiddly was only too happy to exploit his situation with regard to the house. I still left the window open, in the hope that Joey would come back, but it was Twiddly who made expeditions into my room. When, in due course, like Joey, he started to mature and became the lowest form of possum life outside, he would come sneaking into my room, jump on the bed, and beat up the bedclothes.

Like Joey, he retired into fantasy. Everyone else was beating him up, so he took it out on an imaginary enemy. Unfortunately, the part of

the bedclothes which made the best mock enemy was the part raised into a hump by me, especially if I moved. He apparently couldn't smell me through the clothes, except as he smelt me on the rest of the bedding, and didn't know it was me he was attacking with considerable force and no inhibitions. I had some trouble persuading him to keep his attentions to a genuinely inanimate fetish.

Like Joey, too, he weathered the worst of the mating season before he left, at the age of seven months.

MRS. POSS Some of my other new acquaintances made their appearance in a very dramatic way. The first was Mrs. Poss.

I was outside one night fairly early in the piece, when I heard a dog barking, seriously, on an adjoining vacant property. I found a large female possum, her pouch just slightly distended by a baby, about ten feet up a dead tree, with a labrador barking and leaping and making every effort to get her. She clung there, just out of reach.

I yelled at the labrador, and tried to drive it away, and all the while the possum just stayed there, in full view, frightened, but making no attempt to go higher. The dog's owners arrived, and collared it. In the meantime I had spotted a second, smaller possum, hiding at the very top of the tree.

Once the dog was removed, the older one was quite sanguine about accepting reassurance and food. I wanted to identify the younger one, so I stayed and watched. It was a juvenile female, also slightly pouch gravid, and once you saw the two together there could be no doubt that she and the older one were mother and daughter.

The mother soon demonstrated that she could go up the tree with complete facility. Mrs. Poss had been deliberately exposing herself, to draw the dog's attention, while her juvenile daughter got to safety up the tree.

I didn't ever begrudge Mrs. Poss a hand-out after that, even though she wasn't Joey. We gradually evolved a standard meeting place in a clump of banksias, just on the corner of our property, beyond the labrador's place and the adjacent vacant lot. She was, without a doubt, the biggest, ugliest possum I had ever seen. The caricature portrait which appears in most drawings would do her no injustice whatsoever.

She came regularly, and showed not the slightest hesitation about climbing up my legs to find her dinner. She didn't beg, and she didn't actually demand. Her attitude was that of a good-natured adult persuading a sulky and recalcitrant child to behave itself by turning the matter into a game. `Nif, Nif, Nif - where's the bread? Come on, I know it's there. Where have you hidden it tonight?' It was, in fact, in my duffle coat pocket, as her nose informed her. So she simply climbed up my legs, gently but firmly, to get it.

She was a very large possum indeed, and one night my knees just gave way, and I collapsed on my back in the grass. That suited her purpose admirably. She just planted her substantial self on my middle, so I couldn't get up, and proceeded to rifle my pockets to her own satisfaction.

After that I made a point of making her my last call for the night, giving her her share, then letting her satisfy herself by nosing out the leftover scraps and crumbs in my pockets. I found it more comfortable to back up to her tree and let her climb down over my shoulder to investigate my pockets from above.

Of course, as soon as she established herself in the food-line, her associates started coming too. First Daughter, who had tended to hang back nervously at first, and only accept food at arm's length for both of us, became bolder. Then I became vaguely aware of a third possum hanging

around in the background, watching. Two nights after I first noticed this, Grandpa suddenly marched up to me and greeted me like an old friend, much to my astonishment.

Up to this point, all the adult possums I'd met wanted, essentially, one thing: food. Joey loved me, but Joey thought I was his mother, so I wasn't really prepared for the next development.

Most possums took what I gave them - usually one piece of bread - ate it, tried to cadge some more, and when it wasn't forthcoming departed for the night. But more and more frequently, Mrs. Poss did not. She remained on my shoulder - or rather both shoulders, stretched from one to the other, since she didn't really fit on one - long after all the food was gone, and she had satisfied herself on this point by personal investigation. Or she would remain sitting quietly on a branch beside my head.

She stayed because she liked my company. As simple as that.

I didn't know quite how to please an adult possum, apart from feeding it. At first, I tried taking her for walks on my shoulder. She got off as soon as I moved a few steps, obviously offended. Riding on mother's back is for baby possums, and to be carried is an insult to an adult. Furthermore, like St. Peter, they do not like being borne whither they would not go.

I stroked her, and found after a while that the hairless insides of her ears got very cold in winter. So I got into the habit of taking them between my fingers to warm them.

That was all. And that was about all she wanted - someone to sit with quietly for a while each night, treating her gently, respecting her dignity. She was a very old possum, who took her maternal responsibilities very seriously. And she seemed grateful to have ten or twenty minutes a night with me to keep an eye on things, and let her relax and get some attention herself, just for a break.

Sitting with her, I came to learn a lot about the nocturnal wildlife. Mrs. Poss would hear something, prick her ears, and look. I would follow her gaze, and eventually I would hear it too. The she would identify it, and relax - `Oh, it's only one of those.' It was from her I first learnt that ring-tails don't count as possums to bushy-tails.

Sometimes, if she could not identify the noise, and remained anxious, I would take the torch and go and look for myself. If it was the labrador, who still prowled hopefully, I'd send it home - it was in other respects a very nice dog who knew me well. If it was a false alarm, I'd say so, and reassure Mrs. Poss, pointing out its location with the torch, then switching it off so she could see for herself and relax. After a time she would shoot a questioning look at me when something puzzled her, and by word, tone and gesture that grew up as a `language' between us, I could set her mind at rest.

Mostly, the noise turned out to be some harmless nocturnal creature that she could identify. We'd just sit and watch it go about its business.

One night, however, we saw something that baffled us both. I was acquainted with the ring-tails by this time, but I'd always seen them with their tails, if not in use, hanging down and curled inwards and under, as they are shown in illustrations. On this occasion, however, I saw one, I'll swear it, following its usual path through the trees, with a bundle of twigs on its back, its tail curled upwards and backwards around them to keep them in place.

I looked at Mrs. Poss, and she looked at me. And we both sort of blinked, and shook our heads, and decided perhaps we'd better not have seen it.

She was the possum. I thought she'd know what it was all about. But she was as bewildered as I was, and turned to me for explanation.

Actually what it was all about was nest-building, and I've seen the same thing since, at Ingleside.

A crisis of sorts appeared on the horizon. The vacant allotment across which she came acquired an owner, and with it a house. People who aren't used to possums don't understand them - some are even afraid of them - so I was worried about what was going to happen to the old lady.

I decided I'd better do all I could in the way of introductions. I'm strongly averse to putting animals through tricks for my own benefit - ego trips at the expense of an animal's dignity just aren't on. There are many animals who do it willingly, delighted by the applause and admiration of a new audience, and happy to please you at the same time. But to make them do it, without knowing that the individual is like that, is an insult, and a betrayal of their trust.

Mrs. Poss was very much an adult possum, an old lady who, notwithstanding her antics with me, possessed great dignity. If she, of her own accord, wanted to come and sit on my shoulder, that was one thing. But to ask her to do it for a strange audience, whose reaction I couldn't predict, was another.

Nevertheless, the situation seemed to call for desperate measures, so I introduced myself, and her, across the fence one night. The new people couldn't have been nicer, and it couldn't have worked out better.

I told them as much as I knew of her history, and `put her through her paces'. She behaved like an old trouper. I called for a volunteer, and got one, rather tentative and nervous - with more courage than I would have had in the same situation I might say, if, like her, I'd never seen a possum before. Oh the look of those claws! Mrs. Poss behaved impeccably, coming down on to her shoulder, accepting food, eating it prettily and daintily, gentle as a lamb. No one could have had any doubts about her nature after that.

Her new humans fell for her immediately. They were very sympathetic, and worried only about seducing my possum away from me. I assured them that she was her own possum, not mine, and it wouldn't make any difference. She was an old lady possum, and life is very tough for them - a perpetual stream of babies, each seeming heavier than the last, old bones not getting any younger, the same hazards and some knew ones, without the old agility to cope with them. The more friends she had, the better. Their house actually had what ours lacked - a raised balcony with a handy tree leading up to it. Mrs. Poss, and her entire group, were entertained royally thenceforth, although she still kept her tryst with me with about the same regularity as before.

It became clear, about that time, that I would have to take Snoopy somewhere else, so I gradually eased out of the picture, paying her only occasional visits. Mrs. Poss's new humans, in honour of their own origin, named her new baby Pom.

I don't know what you call my relationship with Mrs. Poss, if you don't call it friendship. She wanted food, of course, but beyond that she still wanted my company. It's a relationship that possums simply don't have with each other - if they want such a relationship, it can only be with a non-possum.

There was one other possum at Newport who was like that too. She also made her appearance in a rather dramatic fashion.

She arrived in a state of utter terror one night, in one of the trees near the creek, on the opposite side of the property from Mrs. Poss. It was only a few days after Joey disappeared, and she was about the same

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age, size, and, from a distance, general appearance. She was too frightened to do more than huddle in the top of the trees, and I rather desperately wanted a look at her, so I left some food in the lowest fork and went away.

Next night she was back, still terrified, but this time she came a little lower to collect the food when I backed off to a distance, and I could see her more clearly. She was a very small juvenile female, one of the russet-coloured creek possums, frightened out of her wits, and showing obvious signs of having been `raped', too petrified even to clean herself.

My heart went out to that one. She was a juvenile, like Joey, displaced and frightened. I wanted very much to help her, if I could. She was so afraid that at first the best I could do for her was to leave her something nice to eat and go away so she could come down and get it.

Gradually, however, she settled down, and started to come down the tree when she saw me approaching, to take the food directly from me. I persuaded her to sit on my shoulder - she was, in fact, the only possum I've ever tried to `tame'. At first she did so only for the sake of the food, but later she came to like it, and to like simply being with me, as Mrs. Poss did. I named her Foxy.

Later, when she settled in to having babies, she would come along the ground to me, jump up in my lap, baby and all, have her food, then just sit there for a while, after the others had departed for the night.

Her territory straddled the fence-line, like that of Mrs. Poss on the opposite side of the property, but in Foxy's case there was another possum feed-house on the far side. She was one of those possums who have main alternative nests at either end of their territories, and spend lengthy periods in each in turn, though I did meet her in her territory even when she was living in her tree at the other end and not coming to me to be fed.

Her absences were often weeks, or on occasions months, long. When she came back after the first unusually long absence she was suffering from a common possum ailment which causes partial loss of fur, initially over the rump, and whether part of the same thing or not, often seems to occur in conjunction with eye problems. We consulted a vet, who, poor man, did his best to diagnose from afar - Foxy was not the sort of possum you can catch by force and hale off to the vet without doing more harm than good. The treatment proved successful, and though the problems recurred later we could always alleviate her difficulties as long as she was with us.

She remained, however, subject to minor ailments. She was a very small possum, and made life more difficult for herself by being overassiduous in her maternal duties, keeping her babies in her pouch till they were so big that she could hardly sit down properly, keeping her daughters with her in the nest in the tree on our place until well after they were mature, although there was really only room for one adult possum, and the one who went in second, often Foxy herself, was left with a rump sticking out.

Her minor ailments in fact allowed us to be sure it was Foxy returning each time after her absences. Eventually, however, there came upon the scene one of her daughters, Sherry, who remained with her in her nest for nearly a year, and sometimes occupied it later in her absences. Sherry was a beautiful honey-blond as a baby, a little golden possum. But she grew up to be identical to her mother, and subject to the same sorts of ailments. So it was not in fact certain which one of them returned the last time they were both absent - my mother thought it was Foxy, I thought it was Sherry (though of course I hoped it was Foxy). Which is the reason for the dotted line in the genealogy.

MEPHISTOPHELES About five or six weeks after Joey disappeared, a new, large red male arrived. He was very big, with even longer ears than Jenny, somewhat

ragged from fighting. He had a very black band across his nose, and very heavily marked, slanting, `eyebrows'. A handsome, satanic looking fellow.

He made himself known to me by greeting me as a long lost relation, much to my astonishment, as, to the best of my knowledge, I had never clapped eyes on him before.

But he had a recent injury to his right eye, and all hell broke loose, anyway - `Oh, poor darling!' `Should we take him to the vet?' `Quick, where's a banana - Oh, you poor pet'. He was not in the least perturbed by our putting a torch on his injured eye. He simply sat there as if he expected it all. And loved the banana. Absolutely Delicious. Much appreciated.

My mother named him Mephistopheles, and she couldn't have done better. She named him for his appearance, but it suited his character to a tee. We tried to shorten it formally to Mephisto, but he rapidly, and irrevocably, became Meph.

Mephistopheles was a clown. His recent recovery and subsequent arrival at a place where he wanted to be put him in high spirits, and he gambolled like a three months old youngster, performing gymnastics, begging with extravagant gestures, showing off in all directions.

But I was in the habit of staying out with the possums longer than is usual, and it soon became evident that, while he did play for the fun of it, his best performances were reserved for a paying audience. He'd apparently discovered that cute baby tricks tend to elicit admiration, oohs and ahs, and $\underline{\text{food}}$ from humans, and acted accordingly. He was, in fact, a professional performer.

No wonder he showed no surprise when we made a fuss over his poor eye. The injury was real enough, and serious enough to put him in danger until he adjusted to it; the pity was justified. He did indeed need a helping hand. But when I came to know him better I had no doubt that he made the best of his disadvantage, and had traded on it, from house to house, from wherever he came from to our place, like a mediaeval beggar displaying his deformity.

Meph anecdotes are without number. He was the only possum I've met that certainly had a sense of humour, though I've suspected it in others. Like all rudimentary humour it was slightly cruel, but marked, and clearly demonstrated on one occasion. $^{\mathrm{xvii}}$ But this isn't the place for Meph stories, so they will have to wait.

There was one other new arrival, however, which does need a mention at this point.

Meph departed for places unknown in due course, and about eighteen months after Joey disappeared, when Snoopy and I had been living at Ingleside for nearly six months, a new male showed up, confident, and cocky, and young and strong, the image of Jenny but somewhat smaller - so like her in fact, that we sometimes got confused if we couldn't see both at once. The red patches were just starting to show on his shoulders.

He knew the place very, very well, and, together by that time with others, frequented my window, using it as a short meditation place, although he didn't particularly want to come in. He didn't seem to know the people at first, but he soon developed a curious habit. When he came to my mother to ask for food, if she didn't see him immediately he would walk deliberately up to her, and firmly but gently nip the big toe of her right foot.

My mother said it was Joey, and firmly named him Joe. I, rather hurt that he didn't know me, demurred. It could be Twiddly. Another possum might coincidentally have developed the same mannerism - she herself had to admit later that two of his daughters picked up the trick. There was

JOE

not, and never had been, any distinguishing mark to settle the point.

Towards the beginning of 1972, I brought Kylie, Snoopy's daughter who was growing up, back to Newport for a visit. I wanted to see whether there was any chance of turning Kylie loose at Newport, as it was already becoming clear that she and Snoopy weren't going to be able to coexist peacefully.

The attempt was mildly disastrous. Kylie was terrified at the sight of so many possums, and the first scuffle sent her fleeing into the bush. I went round calling, `Kimmon Ki-Ki,' and eventually arrived at the cedar wattle.

`Kimmon Ki-Ki' has the same intonation as `Kimmon Joe-Poss' the way I call, and suddenly Joe came hurtling out of the bushes, just like young Joey used to do. He stopped dead, and looked bewildered. He didn't seem to know why he had come. There as a step-ladder standing nearby, and eventually he decided to climb up it and just sat there quietly for half an hour, on a step level with my shoulder. Finally, he went away.

It was as if he had responded to the call automatically, as a conditioned reflex, and couldn't quite remember what he was supposed to do after that.

Later still, he got a nasty injury to his tail, and on one occasion compounded matters by falling out from under the eaves during the day. We collected him and put him in a box in my room. He got out immediately, of course. Possum fashion, he wanted nothing to do with the nest someone else chose for him. He had to pick one for himself to know it was safe.

He went straight across the room and jumped up on the bed, and again looked bewildered. It was as if he had automatically gone to a place of safety, but found himself exposed instead, forgetting that he was supposed to burrow under the bedcover.

Maybe. Maybe not. I rather think I'm convinced.

When I took Snoopy up to Ingleside, I was in a quandary about the others. Certainly they were capable of looking after themselves, while there was no place in the world for Snoopy, unless I made one. So in a sense the decision was made for me. Mrs. Poss already had good friends of her own, and I finally prevailed on my mother to `just feed Jenny and Foxy occasionally.' Of course, she inherited the whole group.

Honeybunch She maintained stern detachment until Foxy's second baby, Baby Bliss, later Honeybunch, then Honey, came along.

Babies are forever tumbling off their mothers' backs, and once we found that it didn't impair the mother-baby relationship we'd simply scoop up the little one and pass it back to its mother, who'd dangle down to receive it with her front hands, if necessary. Usually the mother is most grateful, but the baby often objects to being picked up by a stranger. Honey was duly rescued from the ground in her turn, but instead of squalling and struggling, she just snuggled down happily in my mother's arms. My poor mother was a goner from then on. It was Honey who later first discovered the virtues of the outside box made for Joey.

When Snoopy and I made our first return visit to Newport, a couple of months after we'd left, it caused some confusion. Snoopy retained the same peripheral status as she always had, but I was a different matter.

My mother and I were about the same size, and occasionally wore each other's clothes; from living in the same house and eating the same food

q. And rightly so. The chances of the animal which pounces on a fallen baby being friendly are so remote that it would be extremely dangerous for them to behave any other way in most situations.

we would have had much the same smell to a possum. After initial caution they had, apparently, decided that she was, after all, the same human who had always fed them, just changed a little in the course of time.

When I showed up, there were two of us, and they didn't know what to make of it. When Snoopy and I made our second visit, the problem had been resolved. My mother was the human who had always fed them; I was just one of the admiring visitors come to look at the possums.

Only one possum showed any sign of remembering me as a separate individual, and continued to do so. It was in fact the possum who had seen me less frequently that any of the others - Foxy.

HAND-REARING This is not a *vade mecum*. There is no doubt that a possum Possums hand-reared within an established group, in contact with them, will be accepted by the group in the sense that they will treat it exactly like any other local possum of the same age, gender and physical capabilities. And if it is otherwise normal, physically competent, and with its basic behaviour patterns intact, then it will grow up to be a viable possum.

Man smell, as such, is irrelevant. Possums divide other possums into those whose scent is familiar and those whose scent is strange. A possum who smells of humans is a familiar possum to others who smell of the same humans; a possum who smells of strange humans is a strange possum to possums who smell of different humans; a possum who smells of any humans is a strange possum to possums who do not smell of humans at all, but then so is a possum who, for similar reasons, smells of different vegetation from a different place. Possums derive their smell in part from their environment, what they eat and where they live. Those whose environment includes humans, and human food, derive part of their own smell from those particular humans, just as they derive it in part from particular trees they frequent. Mansmell is no more, and no less, important than any other similar factor in their olfactory environment.

But I hate to think of the fate of a baby hand-reared in total isolation from other possums, then turned loose among strangers.

Most babies which survive hand-rearing are healthy to begin with, and remain so, or they survive not at all. They grow up physically and psychologically normal, and need to declare independence, move out, and live a normal possum life governed by possum preoccupations and possum `laws' - behaviour patterns, both innate and learned. But raising a baby in isolation, then, when it matures, taking it and shoving it up a tree in t bush and saying, `Go free, go happy!' might or might not work. Free, perhaps, but happy, and a survivor, not for some time at least.

In the first place, it's subject to all the dangers to which any possum transported to a strange locality is exposed: new hazards, not only new in particular - which dogs are loose at what time, which places are dangerous, which are not - but also new in kind. A possum who has never seen an owl, for example, `instinctively' knows that a sudden movement from above means danger, but it may not know, for example, that an owl perched below it, in an adjacent tree, is likely to rise into the air and make such a swoop; a suburbanite possum knows about domestic dogs and cats, and perhaps cars - it does not know about flash-floods in stormwater creeks, or carrion-eating feral cats and dogs; no possum really knows how to cope with bushfires.

It will find that the vegetation is almost completely different, and it will have to start from the beginning and gradually find out what is good to eat; it will miss the human food element, more concentrated in nutritional value than leaves; in short, it will have to adjust to a radically new diet.

Like all possums who suddenly find themselves transported to

heaven-knows-where, it is likely to try to go home at first, and, even more than a normal suburbanite, it's likely to head for the nearest house-lights and humans if it can't do so. And God help it if the nearest house-lights lie across a main road, and it's never seen a main road before, or if the nearest humans happen to regard possums as vermin to be shot or poisoned - it is not particularly well-known that possums are protected animals, and in rural districts where possums represent at threat, real or imaginary, to crops, the law is by no means always observed even when it is known. A possum who considers humans as friends and protectors is just as likely to pick on someone who is after possum skins, or live bait to blood his greyhounds, as it is to pick on someone who takes a fancy to it.

Moreover, it will be encouraged to depart by any local possums that happen to be there. It will be treated in exactly the same way as any other strange possum of the same age, gender and size - with extreme hostility, particularly if it is female. And it will make the situation worse for itself because of its own inexperience, committing social errors a possum of its age should know how to avoid. It will no longer be a baby, whose blunders can be excused, and who will be taught proper manners by scolding, or lesser beatings. It will be an adult, a strange possum which will arouse the maximum hostility of its own kind by behaving in a manner which, in a normally reared possum, would be tantamount to deliberate provocation.

For while some possum social behaviour patterns are innate, others are learned. For example, the knowledge that another possum, apart from its own mother, must not be allowed to approach within critical distance is innate, but the corollary, the knowledge that it, itself, should not approach another possum, and what it can expect if it does, is not necessarily so - babies often wander up to the wrong mother until they learn better from experience.

Both aggression and fear reactions are innate, but there are several different fear reactions - flight, clinging, freezing or curling up in a ball. The only correct one to use in a losing fight is flight, but an isolated infant might not know this. Given the range of reactions available to it, it may select one of the stationary ones.

I have seen what happens when the wrong reaction occurs.

A female encroached on the core territory of another female, and was physically unable to escape. Unable to flee, in her desperation she clung to a branch instead. The territory holder simply kept on biting her, automatically, a reflex action. There is no inhibition mechanism in this situation, as there is in some other animals. The only stop signal is the removal of the offending presence from range. A retreating rump must be bitten until it is out of reach.

The case I am referring to was a very extreme one: the attacker was Kylie, the victim Snoopy, and Kylie had a special personal hatred for Snoopy, beyond the normal aggression reaction towards another female in her territory. Even so, intelligence came to their aid. The object of the exercise was to remove the offending presence. When the object was not achieved by this method, Kylie finally adopted another: she removed herself from critical distance by taking herself off to another part of her territory until Snoopy managed to escape.

But I hate to think what would have happened if the attacker, as well as the victim, had been in some way confined.

A healthy young possum, particularly a male released in the mating season, would stand a chance if bright, and a quick learner, as long as it had room to keep out of trouble until it did learn and there was no excessive territorial tension among the local possums. But it would be very