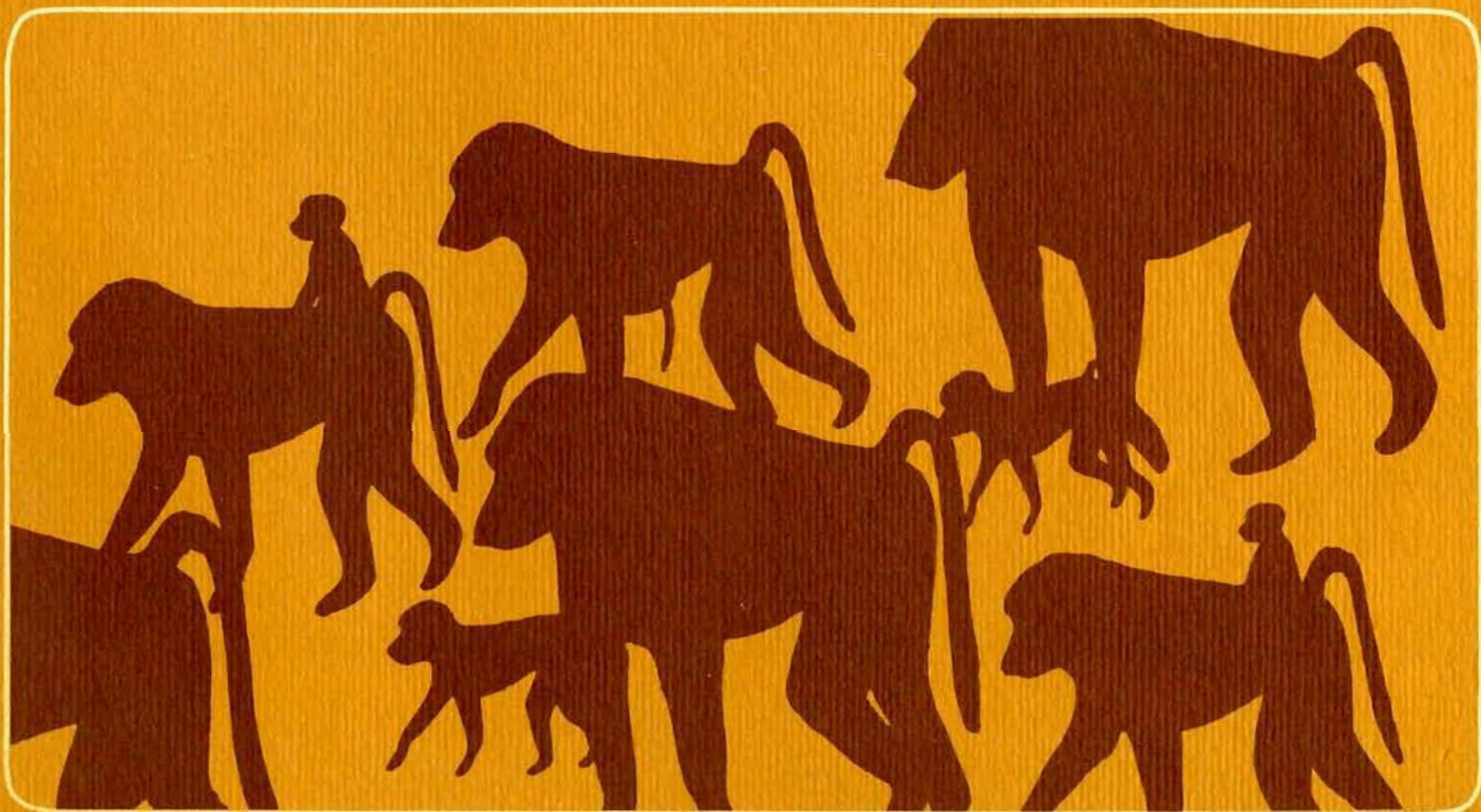


Wessling

THE BABOON TROOP



Man: A Course of Study

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THE BABOON TROOP

This book is based primarily on the field studies of African savanna baboons by Irvén DeVore, Professor of Anthropology, Harvard University.

The Troop Members

A baboon troop may have as few as 10 baboons, but some troops have over 100 members. An average troop, though, has about 40 members. In such a troop, there would be about:

7 adult males



12 adult females



3 subadult males



10 juveniles



4 older infants



4 younger infants



Adult Males

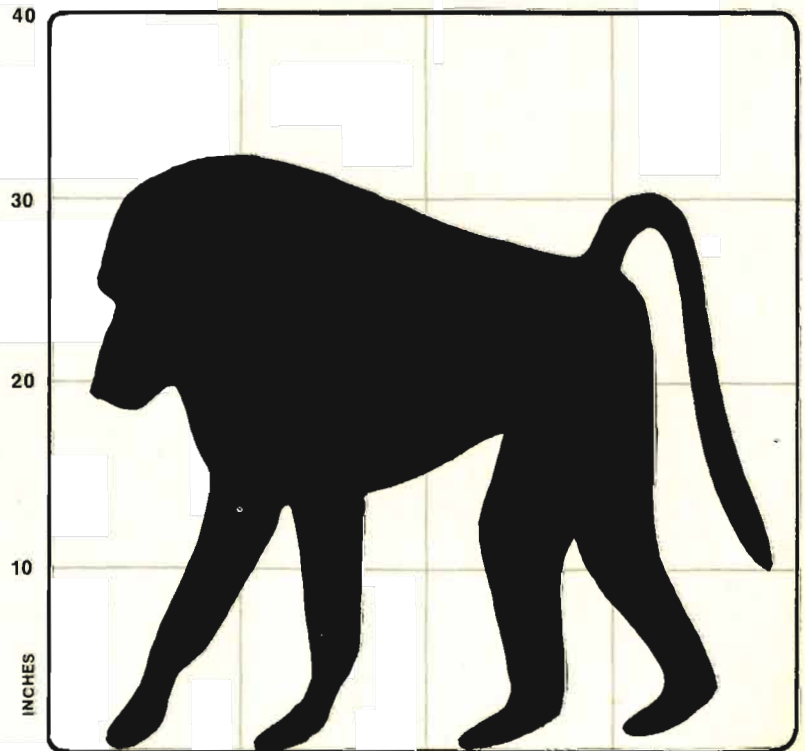
AGE: about 9 until death, usually at about 20 years

Adult males are not fully grown until they are about nine years old. At this age, their canine teeth are full length. Adult males are twice as big and much stronger than the females.

They are also more aggressive than the females, that is, they are readier to fight. Being bigger, stronger and more aggressive gives them some control over the females. We say they are dominant over the females.

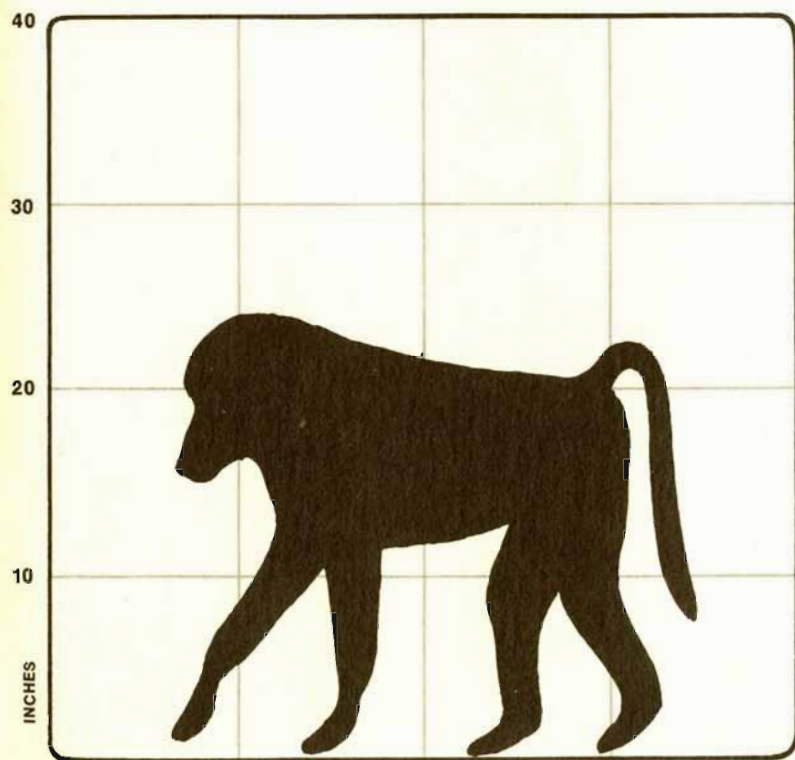
But they also defend and aid weaker members of the troop. Females and the young will go to a dominant adult male when they want protection.

How can we tell which baboon is dominant over another? The easiest way is to notice which one wins when they chase or fight. Other ways are to notice which baboon steps out of the other's way, or which one takes food they both want.



Adult Females

AGE: about 5-20 years



Females are adult when they are ready to have babies, at about five years of age. Mothers carrying infants cannot run as fast as other troop members and, together with the infants, need the most protection when the troop is in danger from predators.

Subadult Males

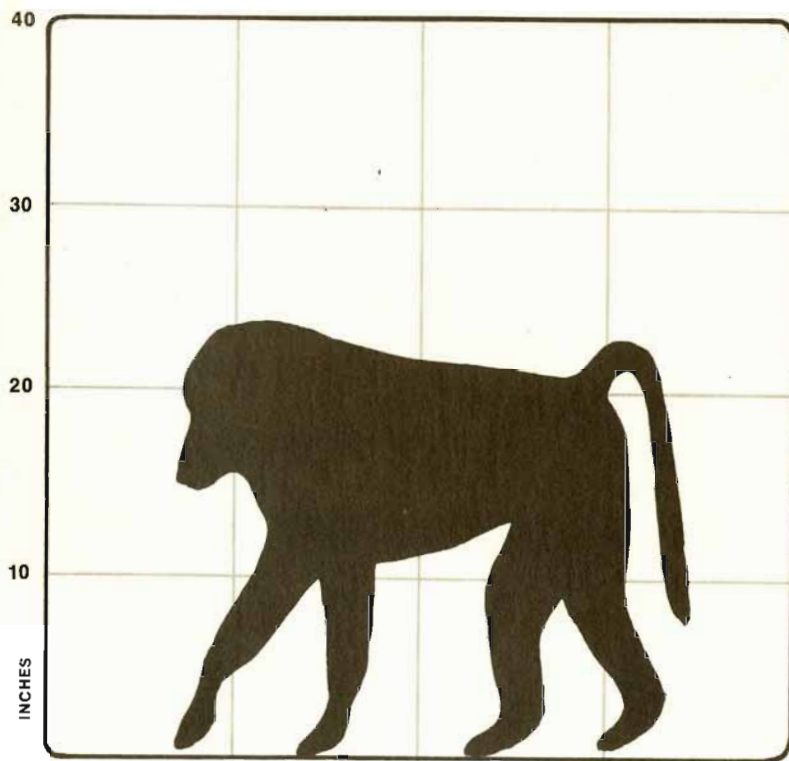
AGE: about 5-9 years

6

From five to seven years of age, subadult males are about the same size as adult females. Their canine teeth are not yet full-size, and they do not have the strong muscles or the great fur ruff of the adult males.

Both subadult males and females without infants can run quickly in times of danger. They need less protection than females carrying infants and young baboons.

As young subadults, the males are less dominant than the adult females, but by the time they have grown into nearly adult males (seven to nine years old), they have fought and become dominant over all females in the troop.



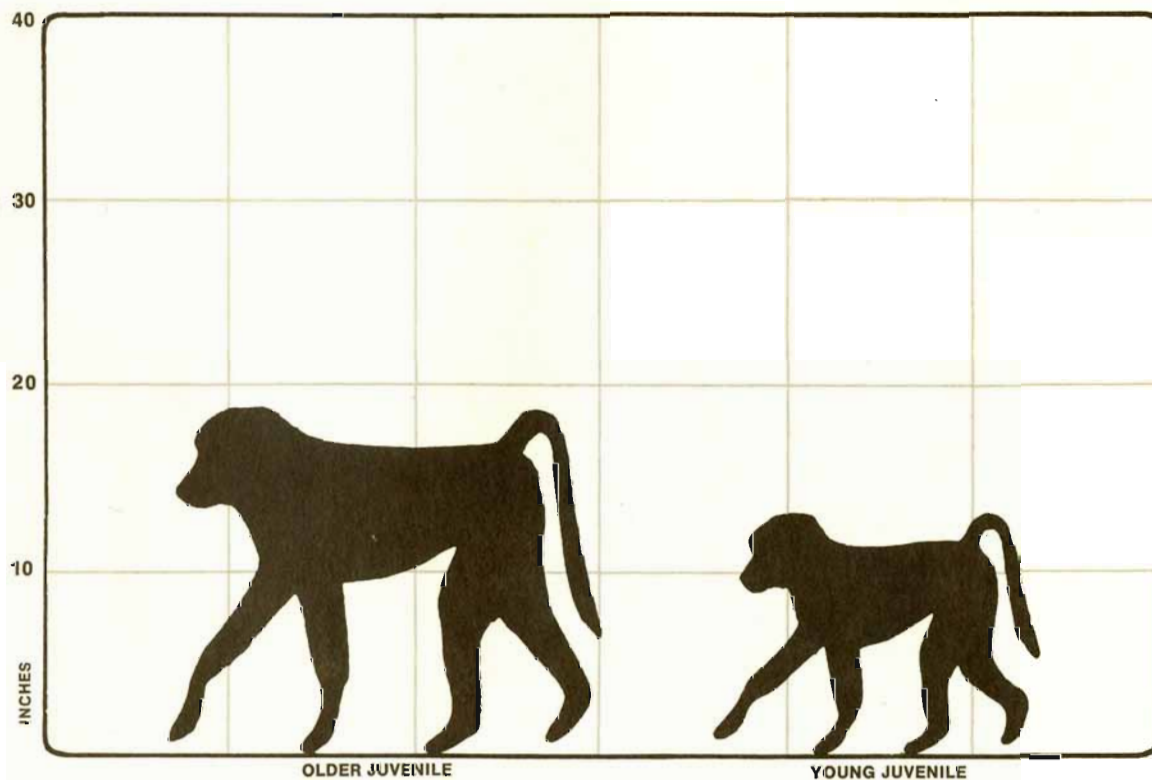
Juveniles

AGE: about 1-5 years

YOUNG JUVENILE: about 1-3 years

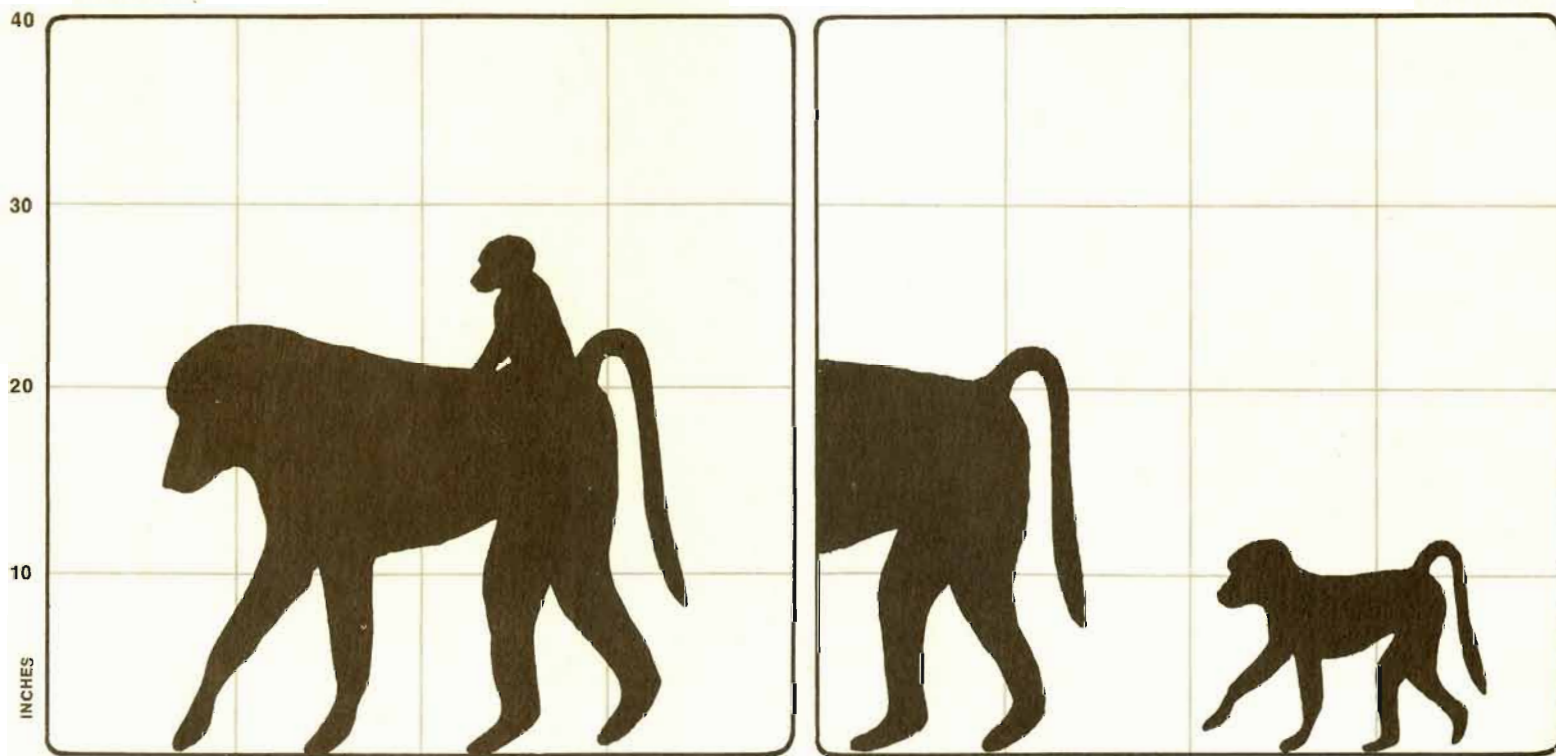
OLDER JUVENILE: about 3-5 years

Young juveniles, male and female, need some protection. Although in times of danger they can run to safety on their own, they seldom stray far from adult males.



Older Infants

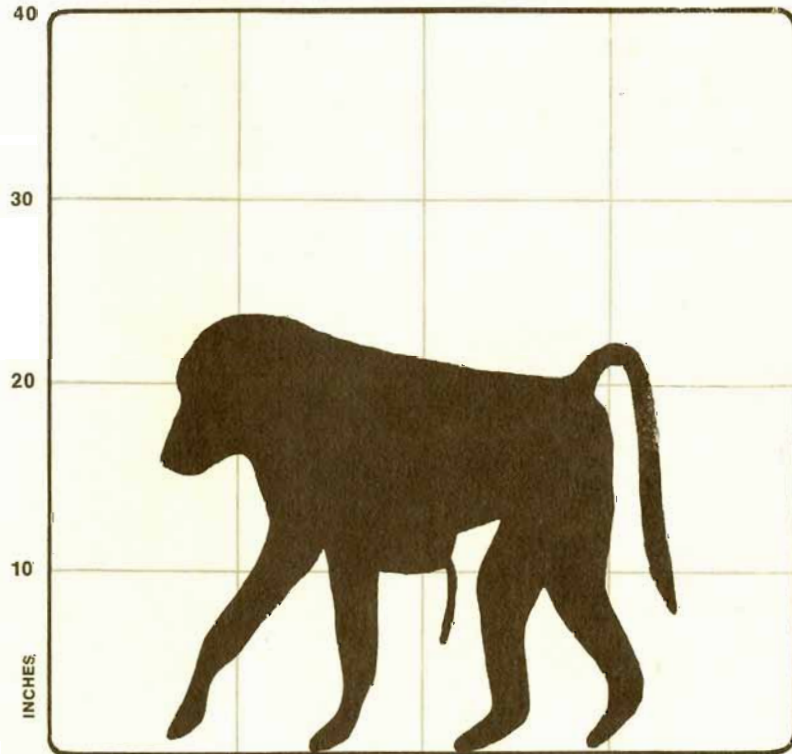
AGE: about 4-6 months to about 1 year



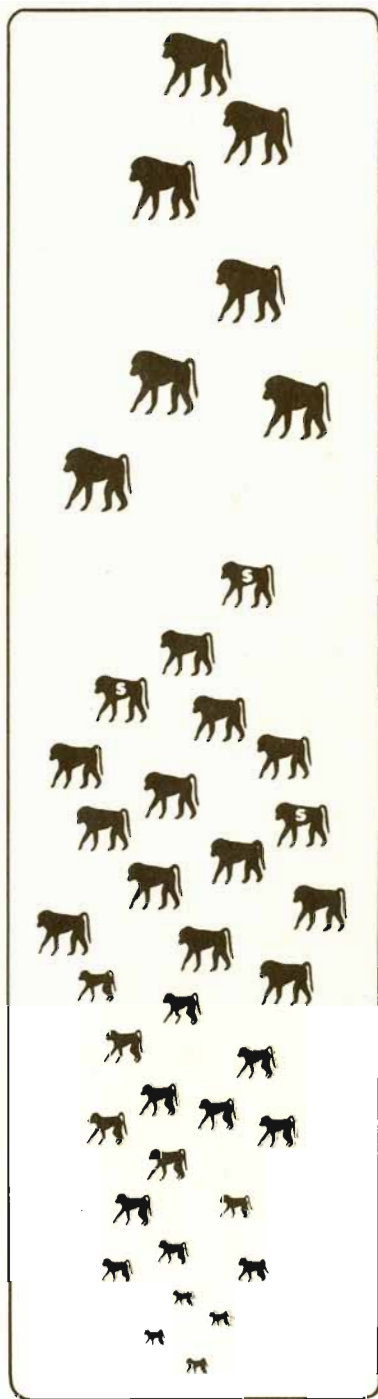
Younger Infants

AGE: from birth to about 4-6 months

The infants, young and old, are the weakest 40 members of the troop. The clumsy little pink and black infants are also very attractive to all baboons in the troop.

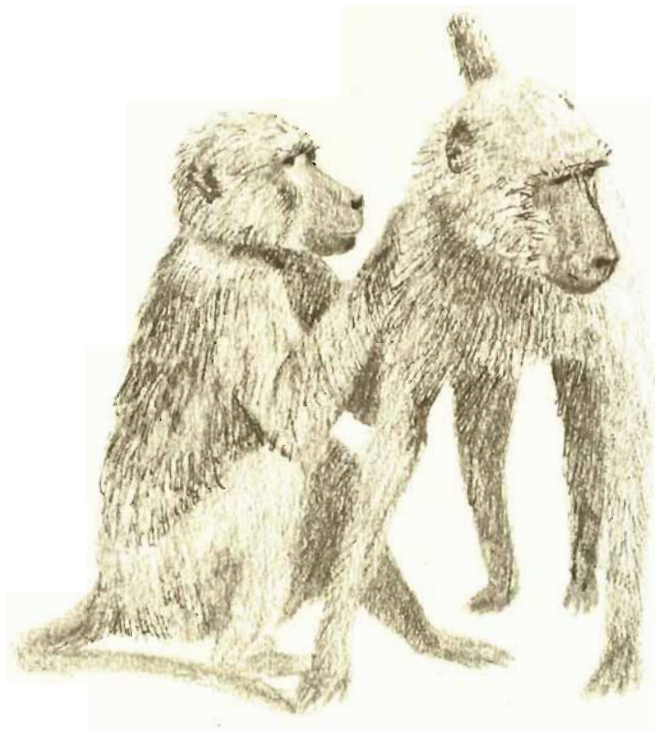


If we tried to picture the way in which members of a troop are dominant over each other, the troop would look like this:



Of course, a real troop never looks like this. Baboons in a real troop are spaced one way when it is moving rapidly, another way when it is feeding, and still another way when the baboons are resting. If we understand which baboons are dominant over others, and which baboons are related to each other, it helps us understand why each baboon is where it is at any time.

THE TROOP AT REST



When a baboon troop is resting, adults sit together cleaning each other's fur, mothers nurse their infants, and juveniles dash around, playing roughly with each other. Each baboon does more or less what it pleases, but troop members stay near each other. Mothers with infants are never very far from adult males. Young females, juveniles and even adult males often gather in small groups around the old females.

A young baboon does not know which one of the adult males in the troop is its father, but we think that the old female baboons gather around may be their mothers. Their mothers fed

them as infants, ran with them when predators were near, and came to them when they got hurt playing with other juveniles. It would seem natural for baboons to keep a special feeling for their mothers throughout their lives, but many more years of study are necessary before scien-

tists can be sure that this is true.

Each female in the troop has about six or seven offspring during her lifetime. This may explain why small groups of the same individuals often come together when the troop is resting. Many baboons in a troop probably feel close to each



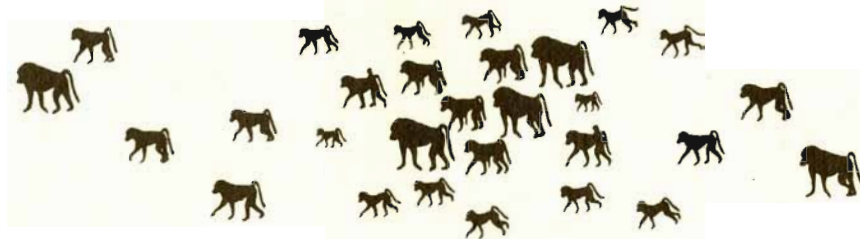
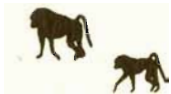
THE TROOP ON THE MOVE

other because they are related through their mothers.

When a troop is moving rapidly across open country to a feeding spot or to sleeping trees, there is a problem for the troop. The troop may meet predators that also roam the plains in search of

food. Then the troop moves in such a way as to give protection to the most helpless members of the troop. At such times the adult males are the most important members of the troop.

Why do you suppose some males are in the center and the others at the edge of the troop?





In a troop of forty baboons there are likely to be three or four males we call the Central Males. Scientists have recently observed that the members of this Central Group of males are not always the largest or strongest males, but they are older males that have learned much through experience. Among other things, they have learned a great deal about each other, about their environment and about predators.

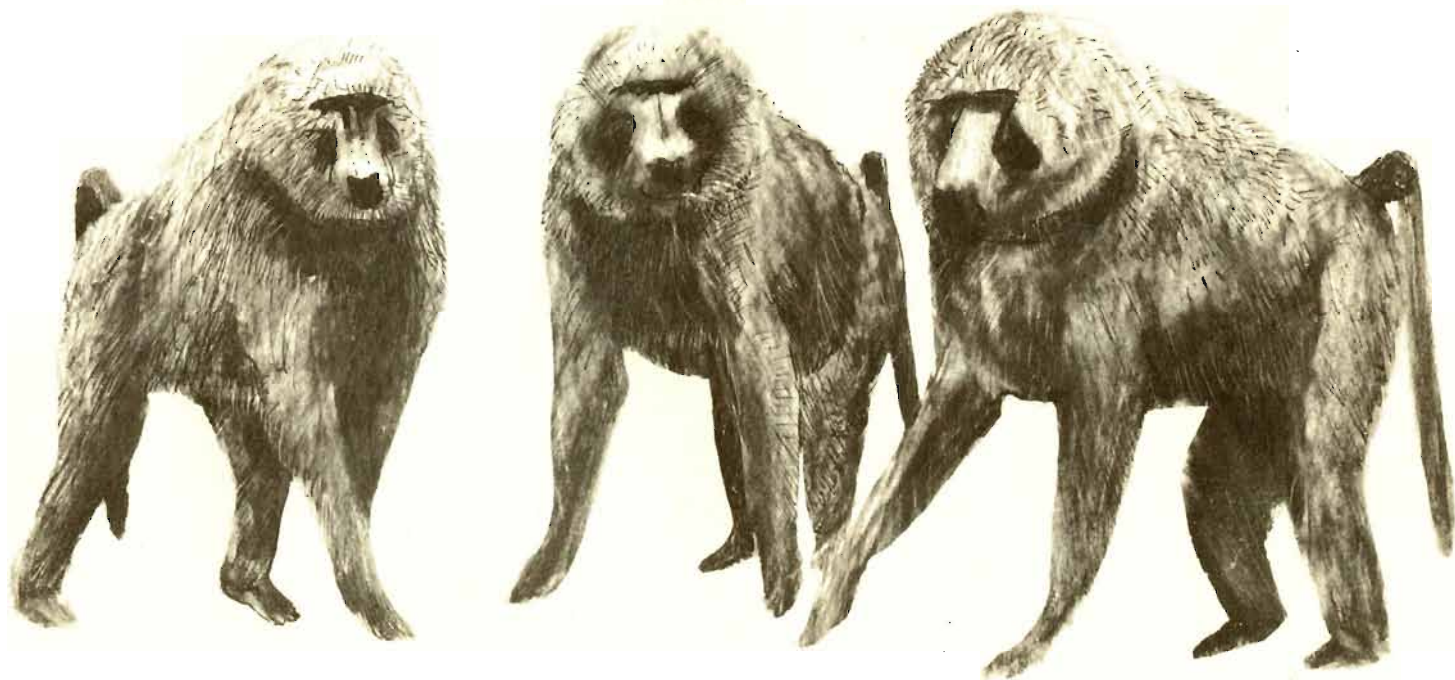
The most important thing about these Central Males is that they support each other. When a Central Male is threatened or attacked by one of the other males in the troop, all the Central Males come together and help him.

A young male, fully grown, may be stronger and more aggressive than any of the older Central

Males. He may be the strongest fighter in the troop. But he acts alone and not as a member of a group. And as an individual he cannot match the combined strength of the Central Group because the members of this group cooperate with each other when any of them is threatened.

Like all adult males, the Central Males are good fighters and they are willing fighters: they are aggressive when they need to be.

Here is another problem for the troop: **If baboons are aggressive animals, what keeps them from fighting each other all the time?**



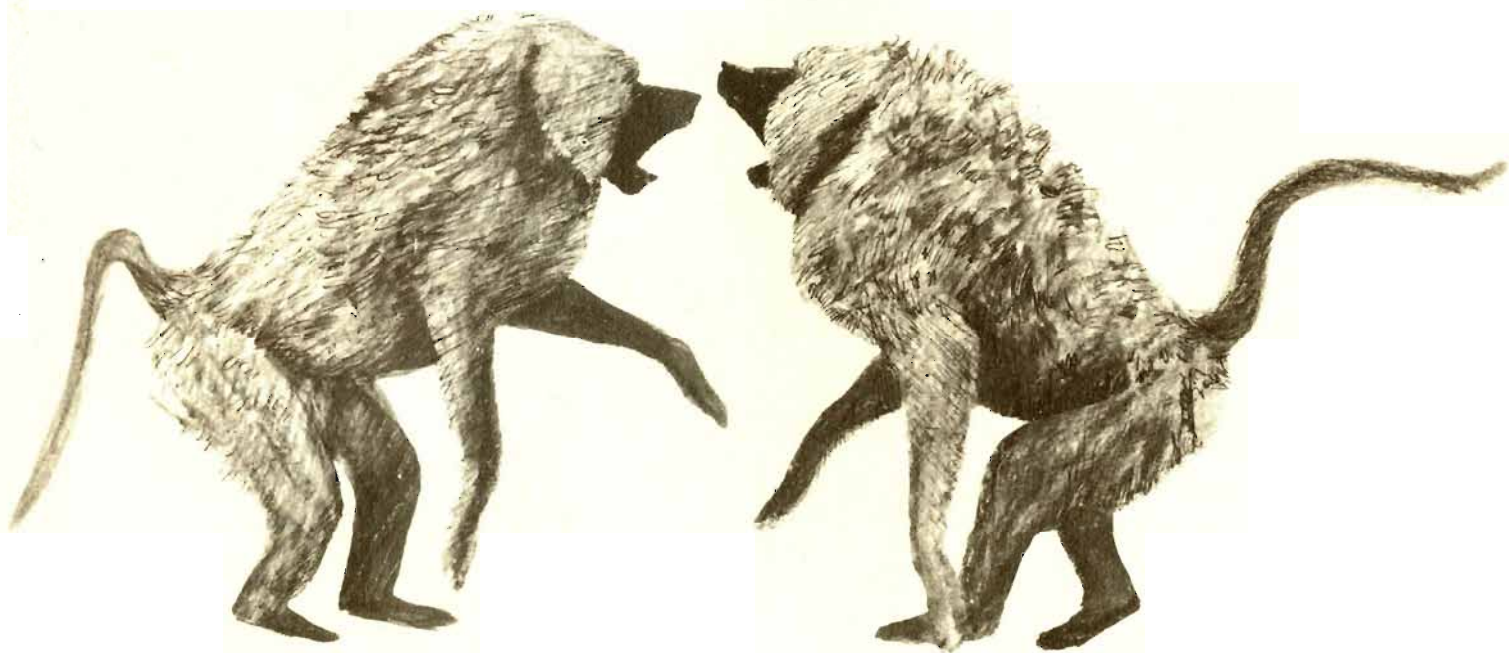
Because baboons in a troop have all grown up together, they know each other very well. They have spent their lives observing that the big adult males are dominant over females and young baboons. They have seen that females are dominant over juveniles and juveniles over infants. They observe that males in the Central Group, as a group, are dominant over other individual adult males. And that even within the group of Central Males, some males are dominant over others.

The regular order of dominance in the troop helps baboons to keep from fighting each other much. Each baboon, from the adult male at the top down to the smallest juvenile, is in a certain place in the order of troop dominance. When

every baboon can tell which baboon will probably win in a quarrel, they are not so likely to quarrel for long.

Actually, juveniles are much too afraid of the adult male's strength to try to fight him. Juveniles only try to be dominant over other juveniles, and usually only over the one next to it in the dominance order. And so it is with adult males and females: they usually only quarrel with a baboon just above them (this is a quarrel they have a chance to win).

And in any quarrel, the weakest baboons rely on the Central Males to protect them if they are really being hurt.



The males that are not in the Central Group are usually the young adult males. Perhaps some of these males are too aggressive ever to become part of a Central group. Occasionally males not in the Central Group are very old males with useless canine teeth or crippled males that lag behind the troop.

Young males are more likely to be out in front of the troop. For one thing, this means that they are the first to arrive at a place where the troop is going to eat or drink. Scientists have noted that once the more dominant Central Males arrive with the rest of the troop, the younger males may have to move out of their way. Also, the strong, fierce young males do not get along very well with the Central Males. Some of them will

become Central Males themselves one day, and they are always trying to break into the Central Group.

What would it be like to be one of the lowest, least dominant baboons in a troop? They never sleep on the most comfortable branch, or sit in the shadiest spot, or eat the juiciest figs. The more dominant troop members take first choice of all these things.

What is the advantage to the troop of having dominant members? If there is not enough food for the whole troop, which baboons should eat first? Is this the way you think it should be?

CHANGES AMONG THE CENTRAL MALES

As the subadults gradually grow larger they force their way into the dominance order of the adult males. Eventually, a Central Male will become too old or crippled or sick to take an active part in the Central Group. A younger male will be ready to take the old male's place in the group, but he will succeed only if he is able to cooperate with other males.

In this way membership in the Central Group changes over the years as younger baboons enter and older ones leave, but these changes are gradual.

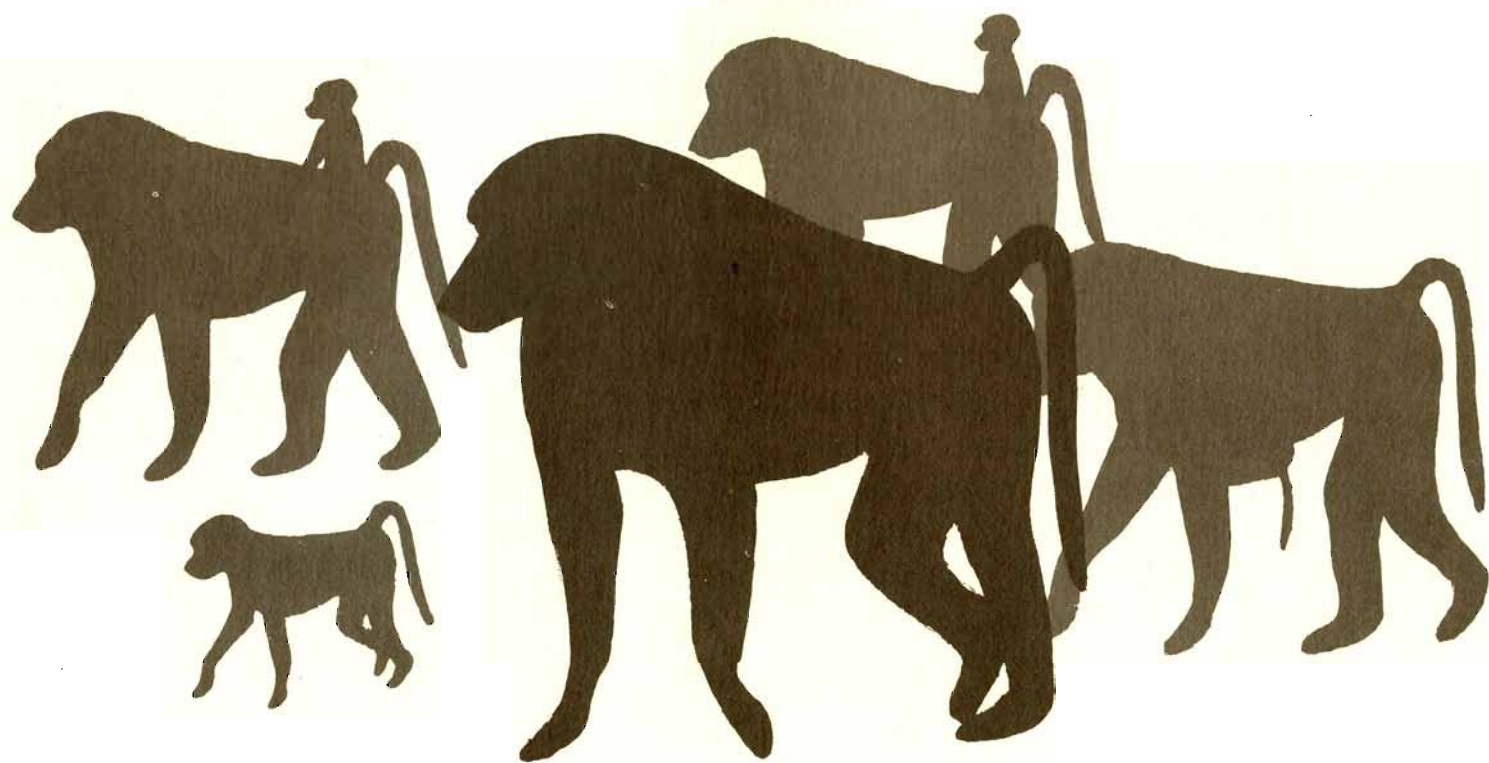
Suppose a hungry leopard or cheetah is after a meal of tender baboon — it is not likely to go after an adult male. It is more likely to chase a weaker member of the troop.

Where are the more helpless baboons likely to be? Staying near a powerful adult male is the best protection for a weak baboon, and staying near the Central Males is best of all. It is not hard to figure out why this is so.

The young adult males that run ahead of the group are usually the strongest fighters in the troop, but they are out in the most dangerous positions. They would be the first to come upon predators and they are in the most dangerous spot if they are suddenly attacked. Only subadult males are daring enough to stay with the young adult males out in front.

Young baboons learn to trust the Central Males to handle dangerous situations. They and the females with young infants come close to the Central Males as the troop begins to move through a dangerous area. These males have other baboons coming up close around them on all sides: that is why we call them Central Males.

The Central Males go where they please; they do not force the others to stay around them. But they are very attractive to other members of the troop. When the Central Males rest, all the baboons rest. When they move, the entire troop moves.



What happens when the troop meets a predator?

All the males, young and old, follow the leadership of the Central Males in times of danger. Since one of the males in front is usually the first to spot the danger, he barks an alarm. At this sound, the females flee. Mothers carry infants on their chest or back; young juveniles run quickly on their own.

As the weaker members dash to safety, the Central Males rush forward. All the males move out together to meet the danger.

Being aggressive and still able to cooperate with other baboons makes the Central Males powerful defenders of the troop against predators. This same ability to do two things, to fight and to cooperate, also allows the Central Males to be the

peacekeepers in the troop. They seldom fight among themselves and they do not let others in the group fight either.

While they are growing up, young baboons learn that it is the Central Males that protect them if a female threatens or a subadult male plays too roughly. Even an adult female looks for protection from the Central Males if she is being attacked by a subadult male. The presence of the Central Males means that most days in a troop are quiet and peaceful, untroubled by violence.

Can you imagine what would happen if troop members fought all the time? Would a baboon troop survive? Would baboons?

SUCCESSFUL BEHAVIOR

Baboons survive because their behavior is useful for survival. Their behavior is adaptive. Over thousands of years only the baboon troops that behaved successfully survived. When we look at a baboon troop today we are seeing the results of millions of years of successful behavior.

The baboon troop is able to survive because the troop behaves in ways that solve the problems baboons face. But what baboons **must** do to survive, they also **want** to do.

Baboons must stay together in a troop to survive: and they want to be together. Many things draw them together. At rest, they may gather around their mothers. All troop members are attracted to the young infants and they gather around them, too, wanting to touch and hold and play with them.

When the troop is on the move, baboons must depend on the adult males to protect them. And they stay near the males, especially the Central Males, because weak and young baboons need the protection of the Central Males at all times. The Central Males in turn show by the way they behave that they find it very agreeable to have the mothers with young infants, the older infants and young juveniles near them. Infants and Central Males are the baboons most necessary to the survival of the troop and they are the baboons in the heart of the troop as it moves.



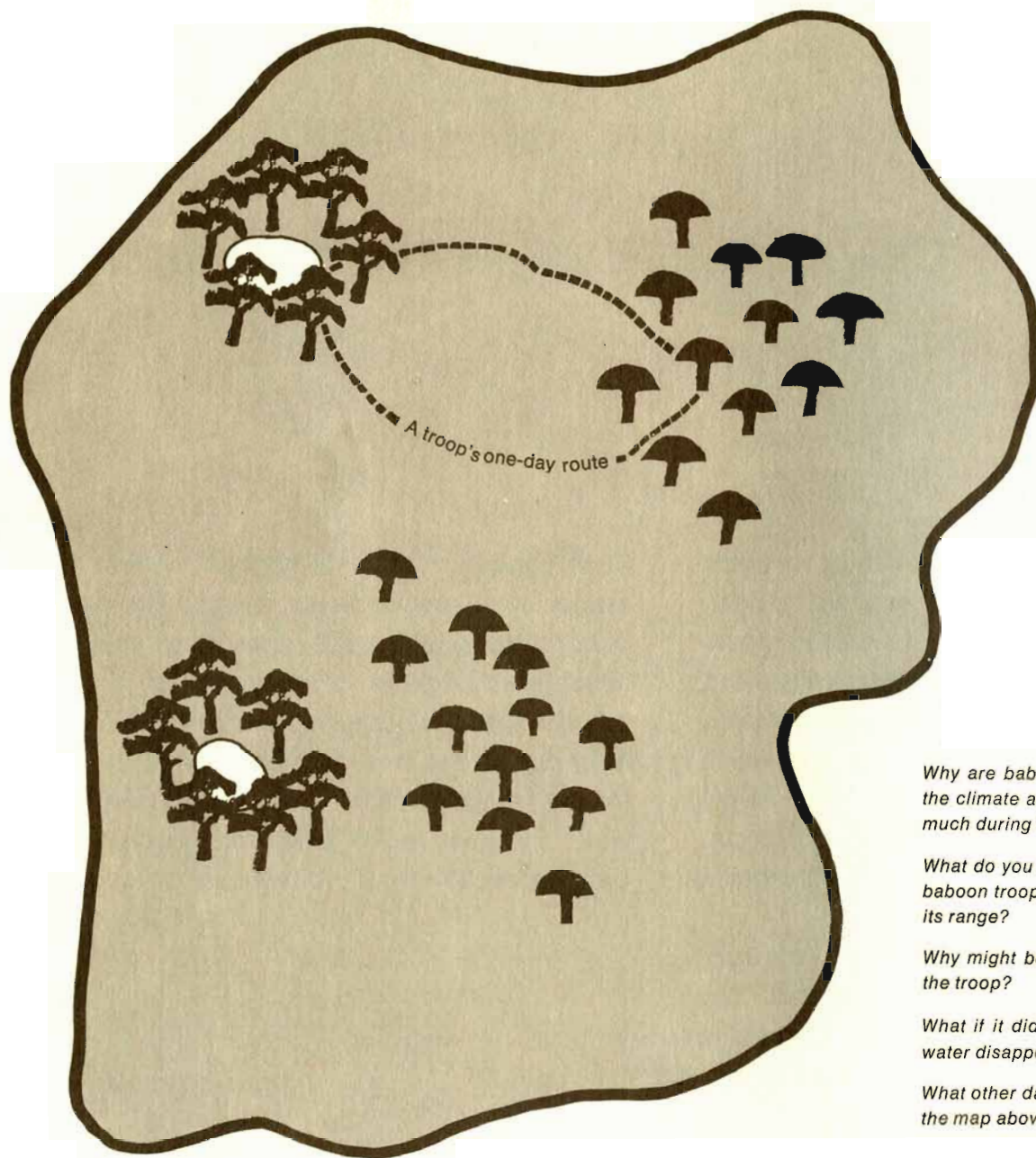
A troop travels three to six miles on a normal day, usually in a large circle. Many baboons live their whole lives without ever going farther than three miles from where they were born.

THE BABOON TROOP RANGE

Baboons move more freely than most animals from one type of habitat to another in the African savanna. Daily they travel through the open grasslands; they rest in the shade of scattered trees and often go into the deep woodlands. Sometimes they sleep in one clump of trees, sometimes in another a few miles away. They find food easily both in trees and on the ground, and each troop usually has a choice of two or three waterholes for drinking.

Compared to other animals in their environment, baboons seem to have great freedom. But if we compare them to man, a baboon's world is very small indeed. A baboon's world is no bigger than what a baboon can spy from the tallest tree in its surroundings.

Each baboon troop lives from generation to generation in a special home range. The size of a baboon troop range can be as small as 6 square miles or as large as 15 square miles. You could drive around the outer edges of any baboon troop in about 20 minutes. But this range has everything a troop needs for survival: a variety of food, water the year round, trees for sleeping and for daytime escape from predators.



Why are baboon ranges found in areas where the climate and food supply do not change too much during the year?

What do you think might be the advantage to a baboon troop that members do not move out of its range?

Why might being tied to a range work against the troop?

What if it did not rain for a long time and the water disappeared in a troop's range?

What other daily routes might the troop take on the map above?

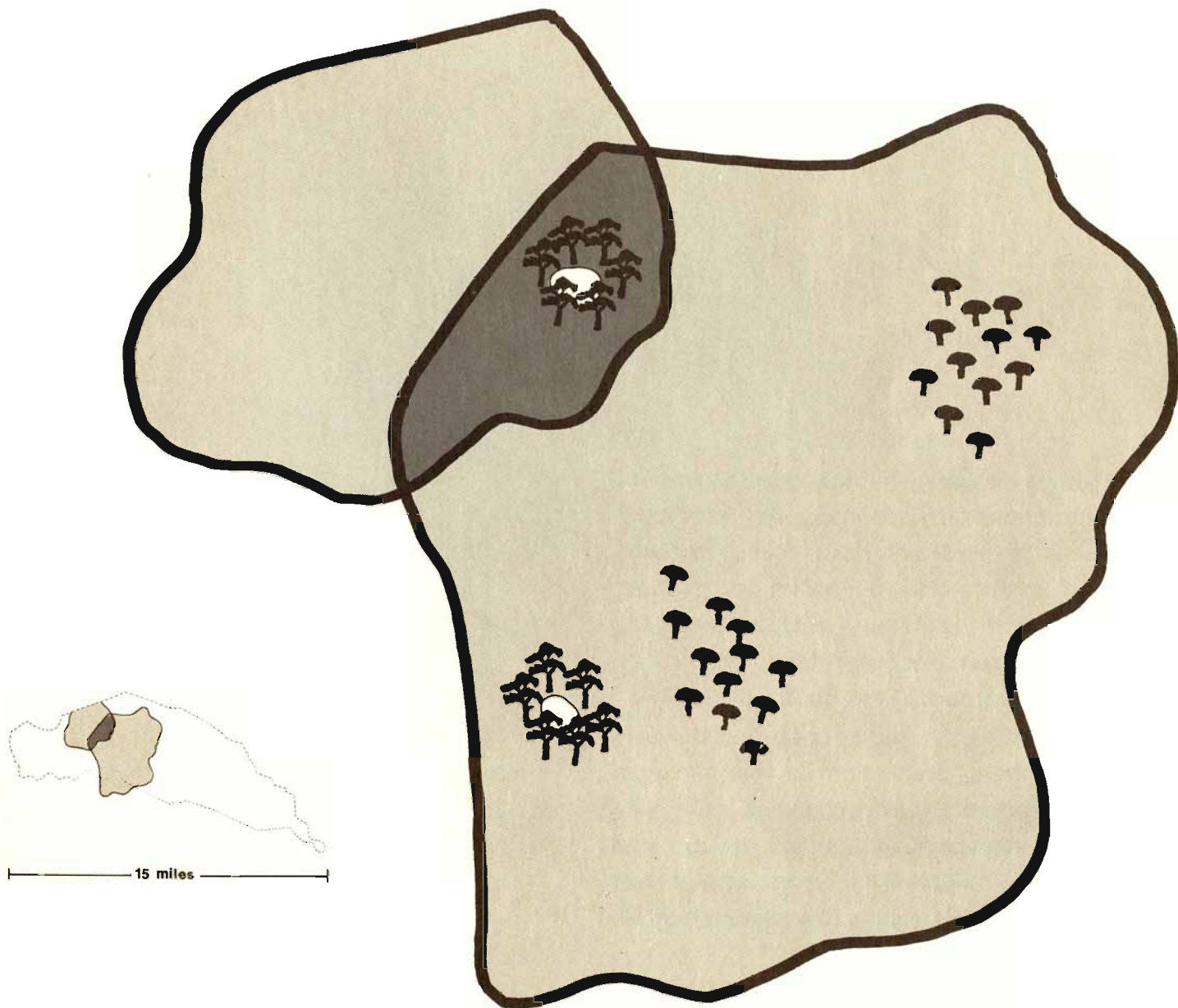
Since all of a troop's survival needs are satisfied within the home range, there is no need for a baboon to leave it. But a baboon is tied to the troop's home range even more by growing up there. Day after day, making the rounds between eating and drinking and sleeping, a growing baboon learns to recognize every rock, every tree, every river in the range. From the older members young baboons learn the best ways to escape danger in any spot. Baboons learn the troop's traditions of where to go and where not to go from observing older troop members. If older baboons never cross a certain river, the young will not cross either.

In the familiar setting of the home range, a baboon feels secure because all members of a troop feel easy there. In fact, a troop will not go beyond the edge of its home range. Imagine trying to drive baboons out of their range by chasing them in a truck: the baboons run at top speed in front of you until they reach an imaginary line, but then they turn about and run right back past you! (This is one way scientists have of finding out quickly where the edge of a range is.) This imaginary line is very real for the baboons themselves. This range is their home and the baboons will not leave it easily.

Unlike many animals, baboons do not fight to defend their range from other members of their species. Since each troop has its own range, different troops manage to stay out of each other's way most of the time. But the home ranges of two or more troops may overlap at some point, usually around sleeping trees or a waterhole. A certain waterhole or especially good sleeping trees may be part of the range of two or three troops. When it can, a baboon troop moves to a different part of its range to keep away from a neighboring troop. In this way, a troop need not meet other troops often.

But sometimes, especially in a harsh dry season, baboon troops must come together at the same waterhole. What happens then? Usually nothing very exciting happens. A small troop often leaves when a bigger troop appears at the waterhole, but a number of troops may drink peacefully side by side.

If more than one troop wants to sleep in the same trees, there is sometimes more activity. The adult males of the quarreling troops threaten each other noisily, and the troop with the most adult males drives the other troop from those trees.



Baboon troops almost never fight each other seriously, but relations between troops are not friendly, either. Members of one troop do not mix with baboons of another one. Juveniles do not stray over to play with juveniles of a troop close by, and they do not run away from their home range to join another group. (Few adults do either.)

It would be hard to imagine men tied down to such a small area. Some men in the same environment think nothing of walking 25 miles and back to visit members of another group. And young people in neighboring human groups certainly are interested in getting to know each other. But not baboons.

Baboons stay within their troop, and within their home range, all of their lifetimes. Baboons are not, by nature, great explorers.