



Exhibit message

Sometimes animals need to cooperate to survive. Animals such as lions may hunt in packs to catch large prey.

Quick fact

Lions are actually ambush predators. This means they have to stalk their prey to get close enough to attack it.

Even though lions are very powerful, agile animals, they lack the speed and stamina to run down prey, such as a fleet-footed springbok.

Graphic panel text

Lion *h* \ *Y* *f* *U* \ *Y* *c* *L*

Sometimes female lions work together as a team to catch large prey such as springbok, zebra and wildebeest.

Most hunting packs have up to four lionesses. Larger packs are more likely to catch large prey, but each pack member receives less food than if they hunted small prey alone.

The 'centre' lioness of the pack drives the prey forward slowly, while two lionesses circle in 'wing' positions.

The 'wings' tend to attack the prey first or force it to run near a lion waiting in ambush to pounce!

Other animals which hunt in packs include wolves, catfish and hyenas.

Want to know more about pack hunting in lions?

Scientists are continuing to research the behaviour of lions. Some reports conflict with each other, while other aspects of lion behaviour remain unknown.

Many factors influence the success rate of female lions (lionesses) catching prey, such as:

- hunting group size
- prey size
- whether it's daytime or night time and the
- type of terrain (flat, open grasslands or scrub).

Lionesses seem to engage in hunting behaviour more often than male lions. A lioness will usually hunt alone, particularly when the prey is smaller. If the prey is larger than usual, more lionesses may join in the hunt to increase the chance of success in capturing the prey.

Interestingly though, studies have found that groups of hunting lions do not necessarily eat more than solitary females. This is because a pack that captures large prey must share their kill with the hunting pack and with other lions that did not participate in the hunt. Dividing large prey amongst a pride of lions can greatly reduce the amount of food available to individuals.

Hunting conditions and types of prey hunted by lionesses differ between areas. Pack hunting is also more important in the dry season when solitary hunts are less successful.

Lions studied in Etosha National Park (Namibia, Africa) were recorded hunting up to 16 different species of prey. Five of these species (springbok, zebra, wildebeest, gemsbok and springhare) made up 95% of the hunts.

The springbok is the fastest of all antelopes and a single lion could never catch a springbok by itself. So lionesses need to cooperate if they decide to chase down highly mobile prey such as springboks.

In the Serengeti National Park (Tanzania, Africa), lions seldom hunt in packs. A single lioness can capture a wildebeest or warthog by herself. When they do work together, it is to catch prey such as buffalo or zebra.

Lions are not the only animals that hunt in packs. Hyenas and African wild dogs use similar strategies. Some insect and fish species also hunt in large groups.



Extra for experts

Lions appear to cooperate and coordinate hunting roles when they are hunting in packs.

Some lionesses seem to judge the hunting skill of the lioness that initiates the hunt. If the initiating lioness is capable of catching the prey alone, her companions will watch from the sidelines, then share the kill. If a lioness' hunting ability is poor, she is more likely to be helped by other lionesses, as it may be worth their energy to participate and improve the chance of success.

This way, a lioness does not exert herself excessively and she lowers her risk injury from struggling prey. It may also help the pack to conserve energy as a whole by having the minimum number of lionesses expending energy for a kill.

Studies show that most lionesses have a preference for a particular role in a group. For example, heavier, stockier lionesses will usually act in the 'centre' position of a pack. When lionesses occupy their 'favourite' position during a pack hunting episode, the hunt seems to have a higher probability of success.

Hunting lion packs generally involve a formation of 3 to 7 lionesses. 'Wing' lionesses off to the side circle prey, while 'centre' lionesses wait for prey to move toward them, or push prey forward towards a hidden lion waiting to ambush the prey. The 'wing' lionesses are most likely to initiate an attack on the prey, and 'centre' lionesses sometimes attack if they are within range. Hidden lionesses wait until the prey is about 10 metres away before pouncing.

Adult male lions pursue prey less often than females. Males obtain most of their food by scavenging from lionesses' kills or from the kills of other predators. Sometimes male lions assist lionesses in the hunt of large prey such as buffalo.

Lions often hunt at times of low light such as dusk, dawn and night time—particularly if it's a new moon with a low level of moonlight. This allows them to make a surprise attack on prey and increase their chance of success.

Lions also have good night vision to help them hunt in low light conditions. A reflective layer inside their eyes reflects incoming light and thus enhances their night vision. This explains why the eyes of lions (and many other animals) glow in the dark.

Another theory is that the light coloured, almost white stripe under a lion's eyes may also help to reflect light in the darkness, making it easier for them to spot and follow prey.

Further information

www.lionresearch.org

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