

Pack of surprises

In northern Botswana, a pack of African wild dogs found itself in unusual circumstances, which led to a turn of events that has never been recorded before. Bill Given explains.



The extraordinary social bonds that form in an African wild dog *Lycaon pictus* pack result in a finely tuned system of cooperation in breeding and hunting that allows these carnivores to compete successfully in a land of larger predators. The cornerstone of their breeding system

is the near-monopoly of the dominant pair on reproduction. The alpha female gives birth to 90 per cent of the litters, while other members offer support with food delivery and protection. Even so, wild dog pups suffer a mortality rate of 60 per cent in the first year.

If a subordinate female whelps, it is typically within four weeks of the alpha female doing so and the latter then incorporates the new pups into her litter. Dominant litter pups have an advantage due to their increased ability to compete for food. In the case of the Mapula pack, the second litter was born four months after the first, too late for adoption by the dominant female. Her three surviving pups had already graduated from the den and were mobile with the pack.

These five, out-of-cycle pups had additional obstacles to overcome from the start. African wild dog puppies are born in a den below ground where they remain for the first four weeks of life. Generally they are under the constant care of their mother, who remains with them and depends on the pack to hunt and then return to feed her. The subordinate female can count on no such support. If she wants food she has to hunt with the pack and leave her puppies unattended. Furthermore, as the first litter of pups had already joined the pack, it was possible that the dogs would not return to the den at all.

Luckily for these pups, the dominant male became sick and took on the role of babysitter, remaining at the den and

ABOVE LEFT Two litters of pups make exhausting work.

ABOVE Amazing sacrifice: a six-month-old pup regurgitates its meal to feed younger puppies.

RIGHT The young pups try to follow the hunting party.

providing protection when they were at their most vulnerable. More importantly, as wild dogs are unique in their efforts to care for their sick and elderly, he served as a magnet to draw the pack back to the den after each hunting foray. He died just as the puppies were emerging from the den for the first time at four weeks of age.



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The pack now consisted of just six adults. Successful recruitment of pups from both litters became essential to maintain the strength of the group. The young pups were left unattended at the den during hunting sessions, but the pack continued to return and regurgitate food for the small, but quickly growing pups.

Now that they were spending more time above ground, the biggest danger became the older pups, which played with an exuberance that overpowered their little playmates. Numerous cases of rough play leading to the death of younger pups have been documented, and the size gap between the Mapula pups set a new standard. The second litter managed to survive the beatings through a combination of fighting back, hiding in vegetation, snuggling up to an adult and retreating into the den.

The activity at a wild dog den provided an excellent opportunity to observe the highly social nature of this species. The unusual circumstances at the Mapula pack – the fact that one litter of pups was so much older than the other – culminated in an event that had never been seen before. The older pups

Older and younger pups demonstrate the close contact typical of African wild dogs, Africa's most social species of carnivore.

returned from the hunt and regurgitated food for the young pups.

Research has suggested that wild dogs operate on a tight budget – the search for food is a constant battle between the need for energy and efficiency. According to Tico McNutt, who has researched wild dogs in this region since 1989, 'If the developing pups of the Mapula pack are able to afford to feed the young pups, either the area they live in has abundant and comparatively high prey availability, or they do this as remarkably hard-wired provisioners, in spite of their own developmental requirements.'

For precocious pups to sacrifice food and, potentially, their own survival is the ultimate demonstration of how pack members have evolved to cooperate in support of one another. Truly the strength of the pack is the dog and the strength of the dog is the pack!*

** It was Rudyard Kipling who wrote that 'the strength of the pack is the wolf and the strength of the wolf is the pack'.*

FAST FACTS African wild dog

Scientific name *Lycaon pictus*

Distribution Sub-Saharan Africa

Habitat Semi-desert to alpine zones, although savanna woodland is probably preferred.

SIZE Body length is between 75 and 120 centimetres and shoulder height is up to 75 centimetres. African wild dogs weigh between 20 and 32 kilograms. There is no variation between the sexes, although dogs from southern Africa are consistently larger than those from East African populations.

BREEDING Gestation is 70 days.

LONGEVITY About 10 years.

CONSERVATION STATUS Endangered.