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Field Report

Black-backed jackals hunt seals on the Diamond Coast, Namibia

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Abstract

This note describes the predation of Cape fur seal pups *Arctocephalus pusillus* by black-backed jackals *Canis mesomelas* on the coast of Namibia. Despite the availability of carcasses and leftovers from brown hyaenas *Hyaena brunnea*, jackals still kill pups on their own.

Introduction

During a study on brown hyaenas at a Cape fur seal colony in Namibia (Kolar 2004), I had the chance to observe the foraging behaviour of black-backed jackals. Although the observations were opportunistic they show an interesting part of the foraging behaviour of this species in an unusual environment. The Namib Desert is a very dry desert where free water is scarce. The coastal strip of this habitat is unusually cold due to the cold Benguela current (Skinner et al. 1995). Black-backed jackals live in a variety of environments in east and southern Africa (Smithers 1983; Loveridge and

Nel 2004). Throughout their range they are opportunistic feeders and readily feed on garbage and carrion when it is available. They are also formidable hunters of rodents and gazelles and even feed on fruits and insects when prey is scarce (Lamprecht 1978; Loveridge and Macdonald 2003). Beside brown hyaenas, jackals are the only large terrestrial carnivores on the coast of the southern Namib Desert (Skinner and van Aarde 1981; David 1989). Both species feed on flotsam, carrion and hunt birds and small mammals (Avery et al. 1987). Seals are the main food source in close proximity of the seal colonies. Due to the long lactation period of the seals (approximately 11 months) the colony is occupied all year long (Rand 1967). During the seal birth season, from November to February, there are a lot of placentas and stillborn seals available, providing the majority of brown hyaena and black-backed jackal diets (Skinner and van Aarde 1981; Stuart and Shaughnessy 1984; Skinner et al. 1995; Oosthuizen et al. 1997). Even with this energetically cheap food source available, the jackals still kill seal pups.

Methods

The study was undertaken at Van Reenen Bay seal colony, approximately 80km south of Lüderitz, Namibia. It was conducted during the breeding season of the seals from 8 October 2003 to 5 February 2004. The recordings were made from an observation hut on top of a cliff at the northern end of the seal colony during daylight hours (Figure 1).



Figure 1. Seal colony at Van Reenen Bay in the southern Namib Desert. The seals can be seen as black dots on the beach. The observation hut is situated on the cliff to the right of the beach.

Results

During more than 85 percent of the time spent at the colony (1,020 hours), at least one jackal could be observed. The largest number of jackals counted at the colony was 33. In the course of the study I observed 83 jackal kills and numerous unsuccessful trials. Eighty of those kills were new born pups. The three exceptions were yearling seals that were taken before the new pups were born (Figure 2).



Figure 2. A jackal tries to kill a yearling prior to the breeding season. This one trial was not successful.

Several times two jackals were observed cooperating in killing a seal. The kills lasted from five to 20 minutes. The jackal would grab the pup on the neck or throat and hold it until the pup either suffocated or died of exhaustion (Figure 3). The pups could escape if they managed to pull their opponent into the water (a new born pup weighs five to seven kilograms), or if the jackal was chased away by an adult seal. If a jackal managed to tear the pup away from its mother she would follow it for a long distance. Once I observed a mother pursue the jackal more than 100m inland. As she reached her pup it was already dead, but she still retrieved it from the jackal and carried it back to the beach. Females sometimes protected their dead or stillborn pups for up to two days. Several times the pups also escaped because the jackal was too exhausted.



Figure 3. A jackal kills a seal pup by grabbing its neck.

Once a jackal had killed a young seal it had to open the tough skin. This procedure could take several minutes, and the jackal always started from beneath one fore flipper (Figure 4), although other observers in this area have seen jackals would also open the skin at the anus (Wiesel pers. com.). As it was difficult for the jackals to open the skin they would turn the carcass inside out to reach the flesh. This resulted in the characteristic "sleeping bag" skin by which one can recognise a seal consumed by jackals.



Figure 4. A jackal opens the carcass of a freshly killed pup from beneath the fore flipper.

Discussion

There are between 3,000 (2001) and 6,000 (1998) new born pups present at the Van Reenen Bay colony during the pup season (Ministry of Fisheries and Marine Resources, Lüderitz, pers. comm.). Many of them remain unattended while the females spend about half of their time foraging offshore (Rand 1967; David 1989; Trillmich 1990). The pups are only protected by their mothers, and they are easy prey for jackals, although they weigh almost as much as the jackals. Hyaenas manage to kill seals up to a size of a yearling with one bite in the head (Skinner et al. 1995; Wiesel 1998), whereas the jackals struggle even with newborn pups. Jackals are known to hunt communally and to hunt prey bigger than themselves (Lamprecht 1978). Still, it is surprising that these opportunistic feeders kill prey even if a lot of carrion is available. One possible explanation is that fresh meat is preferred in

this dry environment because it contains more essential liquids. More research would need to be conducted on this topic to support this hypothesis.

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