Namib Brown Hyenas (Hyaena brunnea) and their Marine Prey

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Brown hyenas inhabiting the coastal Namib Desert mainly scavenge and prey on Cape fur seal pups (Arctocephalus pusillus pusillus). Three pup groups are either found on mainland Cape fur seal breeding colonies or washed up along the beaches. At these colonies, brown hyenas regularly kill seal pups. The majority of pups found at the colony are killed in response to or are only partly and selectively consumed. Brown hyenas don’t show prey choice regarding the condition of the pups, but consume the brains of larger pups and thereby have an additive impact on pup mortality.

Introduction
Brown hyenas are described as being omnivorous. Along most parts of the Namib Desert, they are the largest and most predator preying on terrestrial Cape fur seal breeding colonies, such as the Wolf Bay seal colony. This colony is a localized, abundant food source with a year-round availability of seal pups. I investigated whether:
- brown hyenas show prey choice regarding the condition of pups
- seal pup predation is in consequence of the previous question, has an additive effect on seal pup mortality

Methods
Data collection took place at the Wolf Bay seal colony in the southern Namib Desert, during and after three seal pupping seasons from November until March each year. The number of dead pups, which died of non-violent causes or predation, was recorded in 10-14 sample areas. Pup body measurements and mass were taken.

Brown hyena kills were recorded as:
- surplus kills (SK): any part of the pup was consumed
- excessive kill (EK): only the brain was consumed
- cracked excessive kill (CE): only skull bone remnants were found
- completely consumed kill (CC)

Samples of live pups were weighed monthly to determine their general condition at the colony.

Results

Cumulative brown hyena predation was 9.4% in 1997-1998, 9.9% in 1999-2000 and 3.1% in 2000-2001 (Julian Day 0 = 31 December).

Pup production at the Wolf Bay seal colony differed between years and was lowest in 2000-2001. This resulted in empty sample areas from the middle of February.

Conclusions
- Brown hyenas killed seal pups throughout the study period.
- More pups were killed in surplus than consumed.
- Brown hyenas did not choose between large and small pups, with a high probability of non-violent mortality.
- As a consequence brown hyenas have an additive impact on seal pup mortality.
- Brown hyenas selectively consumed larger seal pups.

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