

tunities for gathering information on the part played by baboons in the spread of *A. cyclops* in the reserve.

Adult and juvenile baboons were observed eating *A. cyclops* seeds throughout the year. Greatest utilization of the seeds, however, occurred in April and May when, on average, an adult male baboon consumed daily about 19 000 *A. cyclops* seeds (Davidge 1976). Adult female and juvenile baboons appeared to take similar amounts of the seeds. The 85 baboons of the troop studied therefore consume large quantities of *A. cyclops* seeds each year.

Not all seeds ingested by baboons are cracked during mastication. Undamaged seeds are not digested during passage through the gut, but the seed tests are chemically and mechanically abraded. To determine the effect of passage through the gut on the rate of germination of *A. cyclops* seeds, one hundred intact seeds were collected from several dry baboon droppings found near Olifantsbos in the reserve. A further one hundred fully-developed seeds were collected from pods still attached to trees. These seeds were used as a control, since they were unlikely to have been mechanically abraded. The two sets of seeds ('ingested' and 'control') were arranged in rows on sandy soil 10 cm deep in a glass tank. The seeds were covered with a uniform layer of soil 5 cm deep; a surface partition separated the two sets of seeds. The soil was kept damp by frequent watering. The first 'ingested' seeds germinated seven days earlier than did the first 'control' seeds, and at a faster rate: 25 'ingested'

and five 'control' seeds had germinated after three weeks. Roughly equal numbers of 'control' and 'ingested' seeds (43 and 39 respectively) had, however, germinated 13 weeks after planting. It appears, therefore, that passage through the gut of a baboon does not significantly affect the amount of germination over three months, although the rate of germination was probably increased.

The baboons usually defaecated on top of rocks and on tarred roads, environments unfavourable for germination of seeds. Thirty baboon droppings, examined in February, each contained an average of 20 (range 1-200) undigested *A. cyclops* seeds. The undigested seeds appeared (from the remains of finely divided arils and tests also in the droppings) to be only a small proportion of all ingested seeds. Thus it seems unlikely that baboons are important agents in the dispersal of *A. cyclops* seeds in the Cape of Good Hope Nature Reserve.

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### FOOD, BREEDING AND COAT COLOUR OF FERAL CATS ON DASSEN ISLAND

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Observations of food, breeding and coat colour of feral cats *Felis domesticus* were made from December 1971 to November 1972 on Dassen Island, South Africa (33°26'S/18°05'E). Five species of birds were recorded as prey, either by observation of cats feeding or by finding tooth

marks on corpses (there being no other mammalian predators on the island). Birds were not often recorded as prey considering their abundance on the island (Table 1). Only one record of a penguin chick, partially eaten by a cat, was observed. Cats may possibly take small chicks abandoned by their parents, which often disappeared from their nest sites (Cooper 1974). Terns were killed at the only night roost on the island. Remains of two or three tern corpses (wings, feet & bill) were found daily in one restricted area during the period November 1971 to January 1972. They are thought to have been killed by one individual.

The most important prey animal is thought to be the feral rabbit *Oryctolagus caniculus* which occurs in large numbers. No exact records were kept of the number of rabbits preyed on by cats. However, fresh partially-eaten corpses, of both young and adult animals, were seen almost daily throughout the period of observation. Cats

were often disturbed when eating rabbits.

All sightings of kittens with an adult were recorded. Monthly distribution is shown in Table 2, including a record of a lactating cat. There appears to be a marked summer breeding season. No information is available on breeding interval or litter size in wild cats on Dassen Island, but a tamed cat, caught as a kitten in April 1971 on Dassen Island, gave birth to two kittens in December 1971, six kittens in September 1972 and seven kittens in December 1972. The animal was fed by hand. Cats were seen with kittens at the time of the year when the rabbits bred (pers. obs.) and young rabbits are probably important as food at that time.

The coat colour of 43 cats was recorded. Of the total, 32 (74 per cent) had tabby markings, 8 (19 per cent) were black with a few white markings and 3 (7 per cent) were both white and tabby. Nothing is known of the coat colour of the cats originally introduced into Dassen Island or

TABLE 1

The species and numbers of birds recorded as prey of feral cats on Dassen Island, December 1971–November 1972

Species	No. recorded as prey	Estimated No. on island	Period of year present on island
Common tern: <i>Sterna paradisea</i>	47 adults	up to 25 000	Sept–Feb
Arctic tern: <i>S. macrura</i>	4 adults	up to 2 500	Sept–Feb
Kelp gull: <i>Larus dominicanus</i>	2 eggs, 1 chick	2 000 breeding birds	Oct–Dec
Black oystercatcher: <i>Haematopus moquini</i>	1 adult	225	All year
Jackass penguin: <i>Spheniscus demersus</i>	1 chick	60 000 breeding birds	All year

TABLE 2

Seasonal distribution of sightings of family groups of cats (adult with young kittens) on Dassen Island, December 1971–November 1972

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Number	5	0	1	1	0	1	0	0	0	0	0	1

for how long they have been present. All 15 kittens of the tame (black) cat had tabby markings. The colour of the male parents was not known. On Marion Island 69 per cent of sightings ( $n = 192$ ) of feral cats were of black or mainly black animals; four black and one tabby cat comprised the original introduction (Anderson & Condy 1974).

No information is available on the number of cats on Dassen Island. It is thought that their impact on the bird population is small, due to the presence of feral rabbits.

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### FOOD CONSUMPTION AND PELLET PRODUCTION IN THE BLACK-SHOULDERED KITE, *ELANUS CAERULEUS*

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#### METHODS

A male and a female captive, hand-reared, black-shouldered kite, 15 months old and from the same brood were provided with known weights of live food during two periods in 1975. The birds were jessed and tethered outside during the day and put indoors at night. The amount of food given daily was regulated to maintain the birds at constant (morning) weight. Their pellets were collected and weighed wet, then air-dried to constant weight.

For purposes of comparison a pair of wild

nesting kites was watched continuously from sunrise to sunset on 1 October 1975.

#### RESULTS

The data are summarized in Table 1.

During 1-31 July 1975 the female was fed domestic mice, *Mus musculus*, exclusively and she consumed up to three a day. The bird's evening weight was, on average, 9.4 per cent greater than its morning weight. The evening weight was more variable than the morning weight and was on one occasion 19.2 per cent higher than the latter after a large, late meal. The bird had a mean daily food intake of 41.4 g which was 19.0 per cent of its mean (morning) weight. (The intestines of some mice were discarded by the kite, but this weight loss has been ignored.)

In August both male and female were fed day-old poultry chicks. There was a significant ( $p < 0.001$  by students *t* test) difference in weight between the birds, the female being 12.6 per cent heavier than the male. Both had similar daily food intake/body weight ratios which were,