LIFE WITH SCHAAPEN ISLAND'S SACRED IBISES -

A PERSONAL ACCOUNT

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Schaapen Island (33 06S 18 01E), located in Langebaan Lagoon, presents a surface comprising a mosaic of weedy patches with outcroppings of greyish granite interspersed throughout. Kelp Gulls Larus dominicanus find this terrain favourable for reproductive activity, and approximately 5 000 pairs nest on the island from October to February (J. Cooper, pers. comm.). Isolated clumps of wattle (Acacia sp.) and other introduced bushes are scattered on the island, and these serve as nesting colony sites for Crowned Cormorants Phalacrocorax coronatus, Cattle Egrets Bubulcus ibis, Little Egrets Egretta garzetta and Sacred Ibises Threskiornis aethiopicus.

While the cormorants, herons and egrets build their nests in the branches of the bushes, the ibises prefer to nest on the ground, or on elevated platforms formed from the accumulation of old nests and guano from previous years nesting. Nesting on the ground allows for closer spacing of nests, and indeed, the ibises build their nests touching one another.

When I first arrived on Schaapen Island in October 1977 I realized immediately that my objectives to study the breeding behaviour and ecology of the ibises would be hampered by the presence of the numerous Kelp Gulls. Those pirates are none too quick to snatch eggs and chicks from unguarded nests when given the opportunity. When I approached one of the bushes sheltering a colony of 40 to 50 Sacred Ibis nests, the ibises stood up and took to flight as a group, landing on the rocks nearby. From this vantage point they eyed me nervously, emitting ridiculous high-pitched humming sounds that seemed to convey inner feelings of frustration and anxiety. As I approached the colony, a black and white shape swooped in over the abandoned nests. I marvelled at the skilled precision of the Kelp Gull as it reached down with its bill and deftly plucked a small ibis chick from its nest in one smooth fluid motion, with no perceptible decrease in speed. But I could not bear the responsibility of such losses, and if I was to study the ibises closehand I would have to discover a means to prevent the gulls from snatching eggs and chicks following my visits to the colonies. After a certain period of trial and error (which involved, I regret, a few more eggs and chicks lost to the gulls), I found that I could repel the marauders by throwing stones in their direction. The gulls were too upset by my attack to stage their own onslaught on the unguarded nests, allowing the adult ibises time to return before the gulls could gather their wits and "raid the pantry", so to speak.

I restricted my visits and observations to two separate colonies of Sacred Ibises (six other colonies were active at the same time, in company with Crowned Cormorants, herons and egrets, which I had no desire to disturb). Two hides were constructed, and I learnt to live in these for up to four days at a time, simply to reduce the disturbance I would have caused by entering and leaving on each day of observation. My prolonged incarcerations in the tiny hides may sound rather extreme even to those who do not suffer from claustrophobia, but when compared to the din of several hundred angry gulls milling above me, some defecating and some stooping toward my head to deliver a forceful wallop with both feet, I preferred the quiet, albeit cramped shelter of the hide. The birds were completely unaware of my presence in the hide; to have an ibis or a Kelp Gull stand within arm's reach of me, to preen of just to loaf was always a thrilling experience.

Some of my most interesting observations revealed the role of the Kelp Gull as a scavenger and predator on the eggs and chicks of the ibises. Frequently a chick dies of starvation or other causes and eventually ends up on the ground on the periphery of the colony, or wedged in between two nests. Usually there is at least one gull self-appointed as sanitation engineer for the colony, who patrols the perimeter of the colony and any avenues of access within the colony, in search of discarded chicks. The gull walks slowly and deliberately around the colony, and elicits surprisingly little response from the ibises sitting on their nests. On one occasion I watched a gull swoop toward a nest and grab a dead chick whose head protruded from under a sleeping ibis. The adult ibis was rudely awakened from her siesta, and probably did not realise that her nest had just been "sanitized".

Similar bold attacks and manoeuvres were applied to the capture of live chicks with equal success. During the first two weeks after hatching ibis chicks are guarded alternately by each parent. Early in their third week the chicks begin to wander from their nests, associating with chicks from other nests. By this time both parents forage simultaneously in order to provide a sufficient quantity of food for their rapidly developing brood. In my primary study colony I furnished a cohort of 14 chicks of known age with Zoo Pretoria rings, as well as Darvic tarsal colour rings for individual recognition. The latter were essential for maintaining contact with any particular chick following emancipation from the nest. I had expected the wandering ibis chicks to be too large and evasive to be preyed upon by gulls, but a critical period existed when the chicks linger amongst the deserted nests before accepting the shelter of the healthier foliage elsewhere under the bush, and at this time the young ibises are most vulnerable to gull attacks. The Kelp Gulls succeeded in pulling large chicks from the colony (usually held by the head or tail) and disposing of them with hammering blows of the bill applied to the back. Often a chick continued writhing and kicking as the gull extracted loops of intestine through the hole in its back. After viscera

and large masses of muscle were removed, the carcass was usually swallowed whole (Fig. 1).

My colour-ringed cohort dwindled to zero 25 days after ringing, and by 15 December, 31 days after peak hatching, only 5 chicks remained in the colony from an estimated 116 that initially hatched. Much of this loss was due to starvation: the split between C/2 and C/3 nests is 44 and 56% respectively, and hatching success (chicks present after hatching/eggs laid) was 85%, but no adult ibis was seen attending more than two fledglings, and the third chick invariably starves to death if other agents do not intervene to remove it from the brood beforehand. However, my observations indicate that gull predation was the primary mortality factor on the older chicks in a brood. As a measure of productivity, at most 5 chicks were reared by 54 pairs of Sacred Ibises initiating a clutch of eggs, or 0.093 juvenals per pair. Therefore, productivity was extremely low in my primary study colony.

The intensive study of bird behaviour can bring many hours of enjoyment to the amateur and professional alike, but one must be prepared for surprises!

Acknowledgements

I wish to express my sincere gratitude to the Officer Commanding, SAS Flamingo, Langebaan for providing transport to and from Schaapen Island.

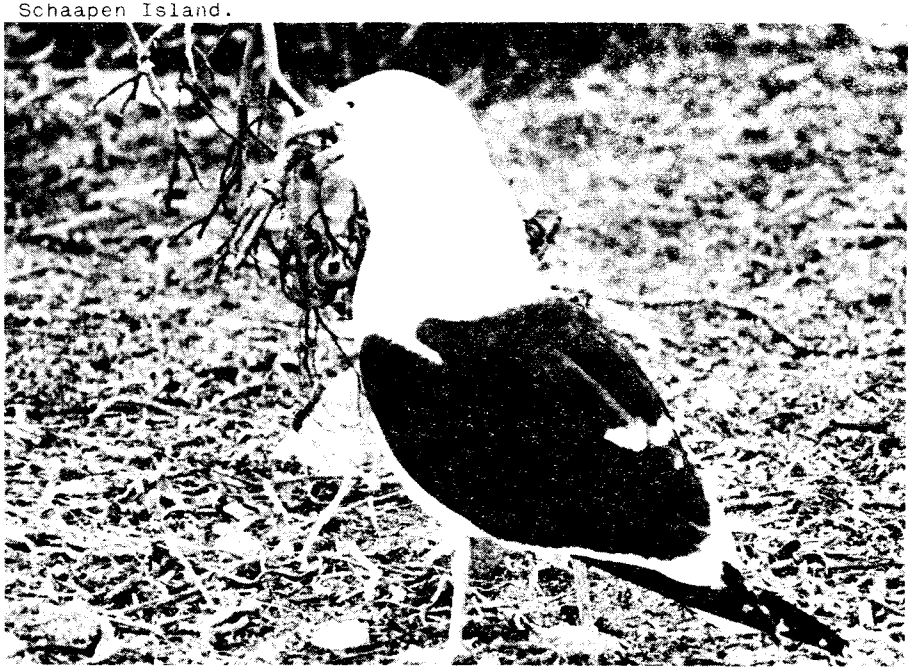

Figure 1. Kelp Gull with leg of colour-ringed Sacred Ibis Chick