FISH PREY REMAINS FOUND IN SWIFT TERN AND HARTLAUB'S GULL REGURGITATIONS.

Claudia Walter, Rondebosch.

In February 1982, members of the FitzPatrick Institute, led by Dr. D.C. Duffy, visited islands off the coast of South West Africa, to conduct research on seabirds, mainly penguins and cormorants. During a visit to Possession Island, undigested prey regurgitated at a roost site of Hartlaub's Gulls (Larus hartlaubii) and Swift Terns (Sterna bergii) were collected.

Most regurgitated pellets consisted mainly of fish. Remains of crustaceans and molluscs were found in a few pellets, but were not readily identifiable. Fish species were identified from otoliths present in the pellets. Otoliths are bony deposits which lie in the inner ear of teleost (bony) fishes and are characteristic for each fish species.

Pelagic Goby (Sufflogobius bibarbatis) was taken by both birds. Swift Terns also preyed upon hake (Merluccius spp.) and gulls on lantern fish (Lampanyctodes (probably hectoris)). It is not sure whether the hake were taken live or as offal from fishing boats since it is normally a deep-water species.

During the same period at Possession Island, Jackass Penguins (Spheniscus demersus) were feeding on Horse Mackerel (Trachurus trachurus) and Cape Anchovy (Engraulis capensis), whereas Cape Cormorants (Phalacrocorax capensis) were taking goby, lantern fish and anchovy. The deeper foraging-penguins and cormorants took fish species that are believed to occur closer to the surface (anchovy and horse mackerel), whereas terns and gulls, which forage at the sea surface (to a depth of approximately 1m) took deepwater mesopelagic fish species (goby, hake and lantern fish).

This apparent contradiction might be the result of a difference in temporal foraging pattern, rather than a difference in foraging method. The gulls and terns may have fed in the early hours of the morning or late in the evening, when mesopelagic species are closer to the surface and therefore more readily available to surface feeders. The pelagic anchovy and horse mackerel may remain at too great a depth to be captured by the terns and gulls, but are shallow enough to be exploited by the diurnal penguins and cormorants.
Sie verschwanden für längere Zeit im Nestraum, vergrößerten die Seitenlöcher erheblich, benahmen sich sehr lärmhaft, brachten aber kein Nestbaumaterial herein.

Kurz vor Weihnachten kamen die Cucullata wieder. Sie überraschten die Sperlinge. Es gab einen kurzen Wirbel, die Sperlinge verzogen sich. Der Einflugstutzen wurde wieder repariert. Im Januar gab es die zweite Brut. Im März zogen die Schwalben ab.


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**REVIEW**

ROBERTS' BIRDS OF SOUTHERN AFRICA by Gordon Lindsay Maclean, 1985 — Published by The Trust of the John Voelcher Bird Book Fund; Cape Town. 848 pages; 74 colour plates; numerous line drawings; colour distribution map per species;

In 1940 the first edition of Austin Roberts' now famous book The Birds of South Africa was published. It was an almost instantaneous success and in the subsequent years, three further editions were published, these being revised by Dr. G.L. MacLachlan and Dr. R. Liversidge. At the time of the first revision, the name of the book was changed to Roberts' Birds of South Africa in honour of the original author.

The fifth edition of "Roberts" has just appeared in the bookshops. The new author, Professor Gordon Maclean, took two years off from his normal University work of teaching and research to completely rewrite the text on all the 891 species covered in the book. This edition claims to be up to date to the end of April 1984, but in fact, for many species, information is included that has as yet not been published in scientific journals. This is because all the species accounts were sent to other ornithologists (usually the specialist in that particular group of birds) to be checked, and these referees often added in the results of their own unpublished work.

Special features of this new Roberts include (i) new colour illustrations, with all the colour plates being placed together at the front of the book for easy reference, (ii) several keys to help with identification, (iii) new enlarged distribution maps showing whether a bird is resident (green),
Breeding migrant (blue) or nonbreeding migrant (yellow),
(iv) sonograms of most vocalizations to aid interpretation
of bird calls, fully explained in the Introduction, (v) re-
vised and corrected birds names in English, Afrikaans and
eight African languages.

I have had opportunity to use the new Roberts on a recent
trip from Windhoek via Caprivi to Francistown in Botswana,
referring to a wide range of bird species from the common
and alien House Sparrow to the rare Honey Buzzard and Western
Snake Eagle. I found the text to be clearly set out, being
devided into sections entitled Measurements, Bare Parts, Iden-
tification, Voice, Distribution, Status, Habitat, Habits,
Food and Breeding. At the end of many of the species accounts
is a reference or two to the most important publications.
Particularly good is the identification section, giving descrip-
tions of simple, everyday language that all readers would easi-
ly understand. Attention is drawn to similar species which
could possible cause confusion, and the distinguishing features
are given. A feature of the book that I particularly like is
the attention drawn to those aspects of the biology of each
species for which inadequate information exists. For example,
a species as common and familiar to us all in Windhoek as the
Cape Hunting has no data available on its Incubation and
Nestling stages, these being listed as "Unrecorded". This
will surely make people look more closely at those species
occurring in close proximity to their homes or on their farms
and start filling in the gaps in our knowledge.

All in all this is a tremendously informative and well pro-
duced book and will undoubtedly be the standard reference on
southern African birds for many years to come. It is an essen-
tial companion for ornithologists, bird watchers and anyone
who enjoys the outdoors.

Christopher J. Brown

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Nagellackentferner mit einem Wattestäbchen gründlich auf eine
Zecke getupft, veranlasst sie zum sofortigen Loslassen, so dass
sie leicht aus der Haut gezogen werden kann. Dieses simple Re-
zept gibt der Internist Dr. Sherman aus Connecticut, nachdem er
es an befallenen Familienmitgliedern ausprobiert hatte.
Andere Methoden wie Bästreiben der Zecke mit Öl oder Salbe oder
Betupfen mit einer brennenden Zigarette wirken meist nicht so-
fort, so dass man versucht ist, an dem Parasiten zu ziehen.
Manchmal rieß dabei der Leib ab, während die Mundwerkzeuge in
der Haut steckenbleiben und Entzündungen verursachen können.
Auch bei Hund und Katze lassen die Fläggeisten nun sofort los.
Aus: Die Gefiederte Welt, Jg. 108, 12, 1984 (S.327).