### ABSTRACTS OF THESES AND DISSERTATIONS

# PREY SIZE SELECTION BY WILD AMERICAN KESTRELS (FALCO SPARVERIUS) WINTERING IN SOUTHCENTRAL FLORIDA

In order to test prey size preferences, free ranging American Kestrels (Falco sparverius) hunting from roadside perches were each offered a pair of white laboratory mice (Mus musculus), representing two of four size categories (7–14 g, 15–22 g, 23–30 g, 31–38 g). Female kestrels were observed significantly more often than males in the study area. The larger mouse of a pair was selected significantly more often than the smaller mouse. Electivity indices showed that mice of the smallest size category were selected below their availability and that the greatest proportional number of attacks was directed towards mice of the largest size category. Mouse activity, determined by the number of 10 cm grid crossings, was directly proportional to mouse size. Thus either differential size or activity may have functioned as a stimulus for prey size selection. These results support an energy maximizing model of predator choice and are in direct opposition to results obtained from laboratory studies of owl and shrike prey size selection. A new technique for testing preferences of roadside hunting raptors for variable prey characteristics is described.

Smallwood, John A. 1981. Prey size selection by wild American Kestrels (Falco sparverius) wintering in southcentral Florida. M.S. Thesis, Miami University, Oxford, Ohio.

#### **BOOK REVIEWS**

The Birds of Prey of Southern Africa. C. G. Finch-Davies and A. C. Kemp. 1980. Winchester Press, Ltd., Johannesburg, South Africa. 339 pp.

This is an exceptional book that unfortunately is limited to 1726 volumes. Therefore, if you don't have a copy by now you may not get one. The book certainly merits a review because of the significant contribution to the history of ornithological art and biology of African raptors it presents. Basically the book contains the art work of the late Lt. C. G. Finch-Davies (1875–1920) with commentary on each species by Alan Kemp, Curator of birds at the Transvaal Museum. Finch-Davies grew up in British colonialist tradition and like so many 19th century British ornithologists lived in both India and Africa. He had a varied and controversial career and if he takes a place in history it will be because of his art work and not his career and achievements as a military man. While the late and legendary Leslie Brown has often been said to be the authority on African raptors his only edge on Alan Kemp has been his age. Alan's intimate knowledge of raptors, his keen ability as an observer and his intuitive common sense about raptors biology have been manifest throughout his narrative species accounts.

The book contains 141 color plates, including the frontispiece; 124 plates of diurnal raptors and 17 of owls. Of the 59 species of diurnal raptors shown all but 15 depict adult and juvenile plumage and in all but a handful of cases there are more than one plate per species. The 12 species of owls shown are all adult but one. While most of the art work

is of a similar quality it spans a 10 year period from 1910 to 1919. Some plates show excellent fidelity, eg. the cream-backed form of the Bateleur (*Terathopius ecaudatus*) while others have some minor problems with body proportions such as the juvenile Black Sparrowhawk (*Accipiter melanoleucus*). Plates that I particularly like are the male Jackal Buzzard (*Buteo rufofuscus*), immature Tawny Eagle (*Aquila rapax*) and the adult female White-faced Owl (*Otus leucotis*). Several species, eg. Smaller Banded Snake-eagle (*Circaetus cinerascens*), and Long-legged Buzzard (*Buteo rufinus*) have occurred in southern Africa since Finch-Davies' time and although not illustrated they are nonetheless mentioned by Kemp.

While not a trained ornithologist Finch-Davies became an excellent observer and clarified the fact that the immature of the Red-headed Falcon (now named Falco chiquera) was just that and not a different species that had been named (Falco horsbrughi). He also clarified a similar adult-immature confusion with a hawk-eagle (Hieraetus).

Dr. Kemp's background is thoroughly zoological and African: born in Zimbabwa of British ancestry. While he has a keen interest in raptors, his Ph.D. work was on hornbills (Tocus sp). Much of the earlier nomenclature of raptors is preserved by Kemp and differs from that preferred in the most recent Peters Check-list of Birds of the World. Many of the forms Kemp calls full species are referred to as "megasubspecies" in Peters; forms approaching full species status. For example, Kemp places the Tawny Eagle (Aquila rapax) as a species apart from the Steppe Eagle (Aquila nipalensis) and two distinctive African buteos (Buteo rufofuscus and B. augur) are treated as different species rather than both subspecies of the former as preferred in Peters. I do not know what bird is called the Mountain Buzzard (Buteo tachardus) by Kemp but I presume it to be the African Mountain Buzzard (B. oreophilus) of other check-lists. Dr. Kemp's intuitive knowledge of raptors is superb. He has included new data in the book from his own observations, for example, data on the Dickinson's Kestrel (Falco dickinsoni) behavior. When my family and I visited the Kemps in Pretoria in 1981, I watched the Dickinson's Kestrels in a large cage in his backyard and one need only watch them and their fast parrot-like movements for a short period to realize how different they are from other "kestrels". Through studies like Dr. Kemp is doing he should help clarify the more accurate affinities and relationships of many of the aberrant African raptors such as this kestrel.

I heartily recommend that one familiarize himself with this book and glean the new knowledge of the remarkable diverse and abundant African raptor fauna that is scattered throughout the text. This book will stand for some time to come as the most complete of its kind on birds of prey of Southern, if not all, Africa.

C. M. White

#### **ANNOUNCEMENTS**

### THE WILLIAM C. ANDERSEN MEMORIAL AWARD

## 1. THE AWARD

An award for the best paper presented by a student at each Raptor Research Foundation Annual Meeting.

#### 2. THE MAN

Although his profession was chemistry professor at Otero Junior College, La Junta, Colorado, Bill Andersen's first love was raptors. He established the Ornithology Re-