

REVIEWS

HOUSTON, D.C. 1974 Mortality of the Cape Vulture. *Ostrich* 45:57-62.

This paper discusses the data from 64 ring recoveries and supplies additional information from the author's work on White-backed Vultures in the Serengeti. At the present stage of knowledge about the Aegypiinae, it is an important contribution for four reasons. It shows that the species does not have age-independent mortality; that Griffon Vultures are about six years old when they moult into adult plumage; that the birds can move considerable distances from their colony of birth; and that vultures might be very susceptible to man's changing patterns of land use.

However there is little detailed analysis of the recoveries and the paper also suffers from a lack of biological thinking on vultures. In addition, I doubt the reliability of the age-class proportions that are given for the Whitebacked Vulture - proportions that were calculated from sight identifications only. This vulture is notoriously variable in its plumage colours and the likelihood of achieving a random sample with the sightings method is low.

Vulture chicks are generally ringed in late August to end of September, and they remain in their nests on average for another two to three months. After fledging they are particularly dependent upon their parents for perhaps another four months, and when the next breeding season begins in April or so, nearly all these juveniles disappear from the colony. Also there are very few immature birds in the colony during the breeding season. By contrast, adults are very much tied to the colony for most of the year, though they do not necessarily breed every year. Hence, a vulture population has at least four components, and adequate sampling must be made from all of these before a survivorship curve or a mortality rate is produced. Until very recently, the ring recoveries came mostly from farmers, and we would therefore expect the majority to be of juveniles and immatures - and figure 1 shows that 88% of the recoveries are from birds of four years of age or younger.

For the only available comparison, many thousands of Black Vultures Coragyps atratus have been trapped (as free-flying birds of unknown age) and ringed in North America (Parmalee & Parmalee (1967) Condor 69:146-155). If the original trapping is assumed to be random (and I doubt that), the ring recoveries show that 19% of the birds are still alive from the seventh year onwards. By contrast, of the 64 recoveries discussed by Houston, only 7% were from birds in their seventh or more years.

Unfortunately we are no nearer getting a mortality curve for a vulture in spite of Houston's preliminary attempt. And it is worth emphasising that putting rings on hundreds of nestlings and recovering rings again from tens of dead birds becomes only an amusing/exciting hobby if the way of life of the bird concerned is not also investigated. For the Cape Vulture itself I would expect the mortality curve to be of the same shape as for the North American moose (Jordan et al (1971) Ecology 52:147-152). On this subject of age-dependent mortality there is also a useful paper by Botkin & Miller (1974, American Naturalist 108:181-192).

In summary then, this paper describes some interesting aspects of the ring recoveries, and suggests that the species must have

age-dependent mortality.

P.J.Mundy

MEAD, C. 1974 Bird Ringing. B.T.O. Guide No.16.

The Foreword cautions that this guide is "aimed rather at the bird watcher who is not a ringer but may be interested to know more about this special activity." It cannot be said to contain the technical data which could recommend it as a field guide; yet no ringer could read it without deriving pleasure from discovering (or rediscovering) the wealth of knowledge which has resulted from this "special activity".

It deals briefly with the motivation for, and the history of bird-ringing, as well as the keeping of records, the rings used etc. Generally these sections are too brief and superficial to be of use to a ringer. However the sections which follow contain fairly comprehensive summaries of information gained from projects in Britain on migration. Most of these data are presented in map form; unfortunately one can be confused by the density and complexity of the symbols used in some of these maps. There is also a fair smattering of information about the speed of migrants and the longevity of birds generally. These sections are of value not only for the intrinsic information, particularly for waders, but also as a source of ideas as to how to use information gained from ringing birds.

This book, which could be described as a hybrid between a ringers' "Guinness book of records" and publicity handout, is well worth the 55p (approx. R1) to ringer and non-ringer.

D.A.Whitelaw