

Reviews

Newson S.E. 2002. Colonisation and range expansion of Great Cormorants *Phalacrocorax carbo* in England. Ph.D. Thesis, University of Bristol.

This thesis examines several aspects relating to the recent growth and spread of inland breeding great cormorants *Phalacrocorax carbo* in England. The overall objective was to improve the current understanding of the mechanisms involved, through a comparison with coastal breeders in the UK, and so allow informed management and conservation decisions to be made in the future.

Methodology for distinguishing great cormorant subspecies, *P. c. carbo* and *P. c. sinensis* thought to occur in the UK using morphometrics is presented and applied in the field at breeding colonies and to birds controlled under MAFF licence on inland waters during the winter. A comparison of breeding performance between inland and coastal breeding colonies in the UK is made and population models developed to examine the importance of demographic parameters on recent population change in the UK. In the final section of this thesis, demographic and spatial data are combined in a space-time model to examine the spread of inland breeding cormorants in the UK. The implications for management of cormorant numbers and future research priorities are discussed.

Engström, H. 2001. Effects of Great Cormorant predation on fish populations and fishery PhD Thesis, University of Uppsala

This work addresses to the increasing population of Great Cormorants in Sweden. In five chapters the author tackles the question of how the avian predator would interfere with fish populations and fisheries. In Sweden Cormorant numbers rose sharply after 1990. In 1999 some 25600 pairs were counted in 154 colonies. In a thorough fish sampling and Cormorant diet investigation at Lake Ymsen, no effects of Cormorant predation on neither fish composition nor density could be discerned. Cormorants took 17 tons and fisheries 12 tons per year. These data compare to 13 resp. 9 kg ha⁻¹y⁻¹. The data were compared with similar investigations at Lake Garnsviken, not under Cormorant predation. Engström further worked on the relationship between eutrophication level of lakes and Cormorant density. Cormorants favour to settle around eutrophic lakes with highest densities at total phosphorus levels of 30 microgram per litre. The question of how Cormorants select fish (size, species) was investigated during three seasons. Perch (28-46% of mass) and Pike (13-30%) dominated followed by Ruffe (14-25%) and Roach (8-20%). Ruffe was taken more than expected and Roach less. Also fish sizes taken were much skewed towards the smaller fishes (8-20 cm). The author related these findings to the habit of individual foraging. An interesting experiment of Cormorant odour tested on fish behaviour did not show clear responses. With respect to the effect of Cormorant predation to fisheries the author has not found a clear effect. The effect Cormorants have on *Anguillicola* infected Eels remains to be investigated. With respect to the tendency of decreasing phosphorus levels in Swedish lakes Engström prognoses a decline in yield given the strong relationship which exists between these two parameters. The Cormorant in Sweden is thus presenting very interesting comparative data to the situation in western Europe with often more heavily nutrient loaded water systems. This thesis is a “must” for those interested in water system approach and integrated management.

Werner, M. 1997. Brutbiologie, Ethologie und Nahrungsökologie des Sokotra-Kormorans (*Phalacrocorax nigrogularis*) am Arabisch-Persischen Golf – Fachbereich Biologie der Technische Hochschule Darmstadt

A rather descriptive but extremely well illustrated dissertation of a species less well known to many of us. Saudi Arabia is home of this *Phalacrocorax nigrogularis* and the study was conducted in the Gulf of Salwah near Qatar between 1992-1995. Birds were ground nesting in dense colonies which may exceed 25000 pairs. The breeding period is from August to April and nests are very close to each other (1.4-1.8 nests/m²) and were hardly more than a small mound with a few feathers. Eggs and young were measured but especially behavioural studies provide a sound basis for future studies. Small coastal dwelling fish species are taken and social (mass-) foraging is the rule. Often birds went away quite long: 4-8 hours foraging trips were often recorded. Relatively little is known of the foraging waters where the birds fly off to. The management of the species (world population c. 180,000 pairs) is uncertain although protected areas occur. The Gulf War caused more than 10,000 victims because of oil spills in the northern range of the Gulf.

Der Kormoran (*Phalacrocorax carbo*) im Spannungsfeld zwischen Naturschutz und Teichbewirtschaftung.

Schönherr, C. & S. Ottenberg (eds.), 2002
Sächsische Landesstiftung Natur und Umwelt
Akademie
Neustädter Markt 19
01097 Dresden
e-mail Poststelle@lanu.smul.sachsen.de

In 15 papers these proceedings of a meeting in Königswartha (Saxony) in 1997 address to the effect Cormorants have on Carp pond fishery. From a European and country by country viewpoint down to the individual ponds the authors try to set the scene of how to judge the position of the Cormorant. Besides diet and impact studies several papers address to protecting measures on ponds. Also, information is presented on how this fishery is carried out: from stocking fingerlings to the harvest of k3 mature fish. Up to 75% losses were recorded and the situation was reported to be alarming in some cases. Some papers remain in German but have English summaries. A useful report which reflects local awareness and measures of compensation as a result of a European change in Cormorant numbers.