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Waterbirds around the world

A global overview of the conservation,
management and research of the
world's waterbird flyways

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The importance of extensive fishponds for Ferruginous Duck *Aythya nyroca* conservation

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This paper reviews the importance of the extensive fishponds as a basic wetland habitat for Ferruginous Duck *Aythya nyroca* in Europe. The data for this evaluation are taken from the BirdLife International IBA database and the Ferruginous Duck workshop in Sofia, Bulgaria in October 2002.

The Ferruginous Duck is listed as Near Threatened by BirdLife International (2000). Once one of the commonest breeding duck species in Europe, it is now declining in most of its European breeding grounds. The largest breeding populations known are in Romania (2 000-6 000 pairs) and Croatia (1 000-3 000), although it is declining in both countries. In Asia, the species is scattered and little is known about actual breeding numbers. Currently the European population is estimated at 12 000 – 18 000 pairs (BirdLife International 2004). It is found in shallow and eutrophic wetlands, and in Central and Eastern Europe, where many of the natural wetlands and habitats of the species have been destroyed, it has adapted to using extensive fishponds. It is presumed that the species breeds in 41 countries and the estimates for the trends in 18 countries suggested declines of 20-50% (Robinson 2002). In many parts of its European range it has populated artificial wetlands such as extensively managed fishponds. In 2002 an international workshop was held in Sofia, Bulgaria to re-evaluate the threats and status of the species and develop a Species Action Plan under the AEW (African-Eurasian Waterbird Agreement). Though it is now considered that over half of the population breeds in Asia, there are no real data on breeding sites with significant breeding populations that can confirm this suggestion. The breeding population in Europe is much better known and the largest breeding populations depend on artificial wetlands especially fishponds.

Extensive fishponds are fishfarms that were created 40-60 years ago for fish farming in Central and Eastern Europe and due to less intensive management have evolved into semi-natural wetlands supporting high biodiversity including important bird populations. They are mostly used to grow Carp *Cyprinus carpio*. To some extent they have replaced the natural marshes which they resemble, and they shelter a high diversity of aquatic macrophytes and emergent vegetation, a far cry from the more intensive fish farming systems of Western Europe.

Croatia, Serbia, Romania, Hungary and Bulgaria account for nearly 63% of the European population of Ferruginous Duck (BirdLife International 2004); the most important breeding habitat is the fishpond with more than half of the breeding sites. A total of 186 IBAs for Ferruginous Duck have been identified in Europe, of which 126 are fishponds (BirdLife International IBA database, 2004). The fishponds are the only wetlands beside large river deltas where moulting and migration concentrations occur (Petkov *et al* 2003).

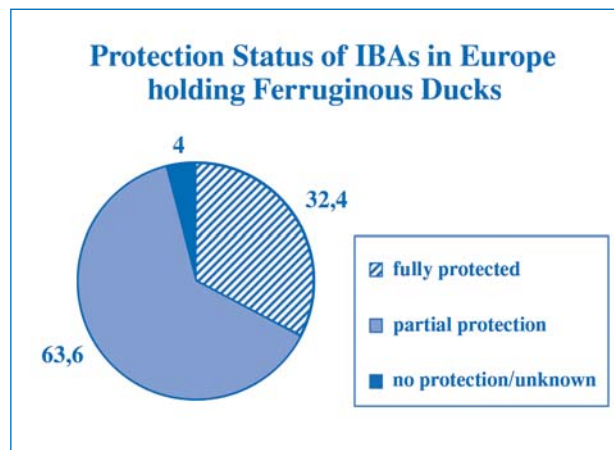


Fig. 1. Protection status of sites important for Ferruginous Duck *Aythya nyroca* in Europe

The abandonment and change in management of extensive fish ponds has brought a significant reduction in Ferruginous Duck breeding numbers in some countries and in some specific fishponds. For example, in Poland the breeding population has decreased from 400 pairs in the 1980s to 40 pairs currently, with much of this decline attributable to the drainage and/or intensification of the fishpond management (Wieloch 2003). In Croatia, the Crna Malaka fishpond, where over 4 000 birds concentrated for moulting and migration in the 1990s (Schneider-Jacoby 2003), is one of the most important breeding and moulting sites in Europe. However, as a result of management changes, numbers there have dropped significantly and the species population in Central and Eastern Europe is endangered. In Bulgaria, Mechka Fishpond (IBA BG024), the most important breeding site with over 30 pairs and with moulting and migration concentrations in the 1990s up to 3 000 Ferruginous Ducks, currently holds 10-20 pairs and no more than 80-100 birds on migration. Within the five years from 1997 to 2002, fishponds in Bulgaria lost their key position as the most important wetlands for the breeding of the species with the percentage of the breeding pairs occurring in them dropping from 49% to 42% (Petkov 2004).

The main problems identified for the fishponds are:

- transformation into intensive fishfarms due to low profitability of more extensive management;
- abandonment because of transformation of the ponds for arable cultivation;
- mismanagement and deterioration after privatisation resulting in overgrowing vegetation and consequent reduction in wetland biodiversity;

- lack of state policy to support extensive fishponds, and policy preferences that lead to their abandonment or transformation to other types of agriculture;
- reed cutting and burning during breeding season leading to loss of clutches, low breeding success and high mortality of reed breeding species;
- drying up of basins in key periods during migration; and
- illegal hunting of Ferruginous Ducks in unprotected fishponds, resulting from a desire of fishponds owners to increase income.

Currently the existence of the breeding population in Europe is under severe threat due to neglect or poor management of the fishponds; if these are transformed or intensified this will lead to a significant decrease in the Ferruginous Duck population in Europe, driving it to the brink of extinction in a number of countries in Europe.

There is a need for conservationists, fishpond managers, state nature conservation and aquaculture and fisheries institutions to combine their efforts to formulate best practice guidelines for the management of extensive fishponds which combine fish farming and Ferruginous Duck conservation. Sustainable fish-farming should be included in the priority measures of the national agri-environmental programmes of the new Member States of the EU where much of these habitats are found. For others it should be a priority to develop state funds and policies and systems of incentives and compensation, both financial and nonfinancial.

REFERENCES

- BirdLife International** 2000. Threatened birds of the world. Lynx Edicions and BirdLife International, Barcelona and Cambridge.
- BirdLife International** 2004. Birds in Europe- population estimates, trends and conservation. Cambridge UK. BirdLife International Conservation Series No 12. 374 pp.
- BirdLife International World Bird Data Base** 2004. Cambridge, UK.
- Petkov, N., Hughes, B. & Gallo-Orsi, U.** (eds.). 2003. Ferruginous Duck: from research to conservation. BSPB Conservation Series No 6. BirdLife International – BSPB – TWSG. 144 pp.
- Petkov, N.V.** 2004. Comparative study on the ecological requirements of the ferruginous Duck *Aythya nyroca* and Pochard *Aythya ferina* during breeding season in Bulgaria. PhD Thesis, Central Laboratory of General Ecology at the Bulgarian Academy of Sciences, Sofia. 220 pp.
- Robinson, J.** 2002. International Species Review *Aythya nyroca*. CMS, AEW, WWT, BirdLife International.
- Schneired-Jacoby, M.** 2003. Lack of Ferruginous Duck protection in Croatia: a reason for the decline in Central Europe. In: N. Petkov, B. Hughes & U. Gallo-Orsi (eds.). Ferruginous Duck: from research to conservation. BSPB Conservation Series No 6. BirdLife International- BSPB – TWSG: 44-54.
- Wieloch, M.** 2003. The status of the Ferruginous Duck in Poland. In: N. Petkov, B. Hughes & U. Gallo-Orsi (eds.). Ferruginous Duck: from research to conservation. BSPB Conservation Series No. 6. BirdLife International- BSPB – TWSG: 28-32.



Extensive fishfarms have evolved under less intensive management into semi-natural wetlands supporting high biodiversity including important bird populations. Orsoya fishpond, Bulgaria. Photo: Nikolai Petkov.