# THE STATUS OF FERRUGINOUS DUCK IN ROMANIA

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## Introduction

Considered once to be one of the most common duck species in Romania (Tuscherer & Forster, 1965), the Ferruginous Duck is now listed on the Romanian Red List (Romanian Academy, *in print*), due to its decreasing population and significant range contraction (Weber, 1994; Munteanu *et al*., 2002). The underlying causes are well known: habitat loss and alteration, over-hunting and disturbance. Over the last century, much Ferruginous Duck breeding habitat in Romania has been converted into arable land. Although, still distributed all over the country, there are clear signs of decline in most areas.

## Distribution and Population

The Romanian breeding population of Ferruginous Duck is declining in size and range, most notably in the Transylvanian Basin and western Romania. Some 6 - 10 000 pairs were estimated to breed in Romania in the early 1990s (Weber, 1994), currently 2 - 6 000 breeding pairs are thought to breed (Munteanu *et al*., 2002). Declines are occurring thoughout the country though there is no information on regional trends. This population decrease started in late 1950s (Munteanu, 1996).

Inhabiting mainly lowland fishponds, marshy areas, and abandoned ditches and channels, the Ferruginous Duck is a migratory species in Romania leaving in late October and arriving in mid-March. There is no information regarding migratory routes used, nor the wintering areas of Romanian breeding birds. There are several reports of Ferruginous Duck wintering in the Danube Delta, but little information on numbers. Ground counts in the whole Danube Delta between 12 November and 19 December 1968 found a total of 13 000 birds (Johnson & Hafner (1970). Such figures seem unbelievable today. There are several observations from January and February, mostly of single individuals (Munteanu, 1965).

Although numbers of Ferruginous Duck in Romania are declining overall, there are still important breeding and staging areas in the country. Several areas may harbour hundreds of moulting or staging individuals in late summer or early autumn.

### *Breeding Distribution*

Ferruginous Duck arrive on breeding grounds in Romania already paired. The nest is located on the ground close to water, or above water in dense Bulrush *Typha* spp., Reed *Phragmites* spp. or other aquatic vegetation. Occasionally, nests are located close to those of Pochard *Aythya ferina*, such as at Sacele Fishponds in 1993 (Szabo, *pers. obs.*).

The Danube Delta is probably the most important Ferruginous Duck breeding site in the whole of Europe, if not the world. The shallow lakes of Transylvania, south-east Romania, eastern Romania, and south Dobrogea still hold healthy breeding populations. The most important breeding site is the Danube Delta Biosphere Reserve, where the Ferruginous Duck breeds on shallow lakes, small ditches and channels along the three arms of the Danube. Large counts here include 200 pairs along the Crisan-Sulina Channel in 1983 (von Hargens, 1983), and ”hundreds“ in the salty areas of Murighiol (Haensel & Talpeanu, 1968). The brackish Razim-Sinoie Lagoon complex is also thought to

hold a few hundred pairs (e.g. Sinoie Lake - 125 birds on 19 June 1971, Lazurile Colina - more than 100 (van Impe, 1977). Other important breeding sites include the major lakes along the Danube, Olt, Siret and Prut Rivers.

***Moulting and Post-breeding Distribution***

Males undergo a complete, post-breeding, flightless moult during June-August, and females likewise, but four to six weeks later. Moult movements are poorly understood, but large flocks of moulting individuals gather regularly in several of the larger deltas of eastern Europe (eg. Volga, Dnestr and Danube). The Razim-Sinoie Lagoon complex of the Danube Delta is an especially important staging areas (e.g. Golovita, Tasaul, Zmeica and Babadag Lakes all hold up to 50 Ferruginous Duck (Dijksen *et al*. 1973, van Impe 1977). The species has been observed several times in the area in high numbers in late July - early September (Weber & Szabo, 1985). The lakes of Dobrudja, such as Techirghiol and Bugeac, are also important (e.g. 346 birds on Bugeac on 3 June 2000). The lakes along the western border of Romania (e.g. Cefa, Socodor, Moftin, and Ineu) are locally important during late summer - early autumn.

Departure from breeding localities begins in September and peaks in October. Spring migration takes place during April. Numbers of Ferruginous Duck are lower in spring than in autumn, but the Razim-Sinoie area holds up to 300-400 birds each season. The most important sites are the Tulcea-Sarinasuf area (up to 50 birds - OAG Munster, 1993), Sacalin Island (up to 100 birds - Kiss, 1971), the Portita area (up to 100 birds) and Grindul Flaminda (up to 120 birds - OAG Munster, 1992, 1993). Lakes Comana and Cefa are also important spring staging sites (with up to 80 and 50 birds, respectively.

**Habitat Requirements**

The Ferruginous Duck is found mainly on extensively managed fishponds and brackish lakes, usually below 450m a.s.l.

*Photo: Armando Bottelli / LIPU*

During the breeding season it prefers fairly shallow expanses of water, rich in submerged and floating vegetation, fringed by dense stands of emergent plants. Open floodplains with numerous oxbows and shallow lakes/ponds are a favourite habitat of the species (e.g. along the Danube, Olt, Mures, Cris, Siret and Prut Rivers). In the lower Danube, and around the Danube Delta, saline, brackish or alkaline wetlands are commonly utilized for breeding (Weber, 1994). The most important habitats outside of the Danube Delta are extensively managed fishponds.

**Conservation Status**

The Ferruginous Ducks has been protected in Romania since 2001. It is listed on Annex 3 of the Law of Protected Areas (LEX No. 462/2001) and hunting the species is prohibited (under the Law of Hunting and Game Management LEX No. 654/2001). It is listed on several conventions which Romania is party to (e.g. Appendix III of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), and Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)). Although protected, law enforcement is inadequate in Romania, and illegal killing and disturbance is common. A National Action Plan is under preparation.

**Threats and Limiting Factors**

***Habitat Degradation and Loss***

Loss of wetland habitat is probably the most significant reason for the decline of the Ferruginous Duck in Romania – either because of human developments, intensification of aquaculture on fishponds (e.g. Rotbav IBA), or their abondonment (e.g. Sanpaul, central Romania). More than 50% of fishponds in Romania have been abandoned in the last decade. Canalization of rivers, flood defense works and the construction of dams on rivers (which usually involves the drainage of the surrounding wetlands/ oxbows) are also threats, but less so in recent times. *Importance: high.*

***Illegal Hunting***

Hunting Ferruginous Ducks has been prohibited since 2001, although illegal hunting occurs owing to confusion with other ducks, such as Tufted Duck *Aythya fuligula* and Pochard. Due to the current provisions of the Hunting Law, and a lack of personnel, it is currently impossible to control hunting activity in Romania. The length of the hunting season is also a major threat as it begins in mid-August before young have fledged. *Importance: high*.

***Introduction of Non-Native Species***

Introduction and stocking of Grass Carp *Ctenopharyngodon idella* has probably reduced the number of suitable breeding sites for Ferruginous Duck in Romania, although the impact of this is unknown. *Importance: unknown*.

***Bycatch in Fishing Nets***

Drowning in fishing nets could be a major threat to the Ferrugionous Duck in the Danube Delta (Petrescu E., *pers. comm.*). *Importance: probably high*.

***Lead Poisoning***

No information. *Importance: unknown*.

***Disturbance***

Disturbance from human activities may be a significant threat, mainly on fishponds where angling is allowed. Anglers often use small boats to enter reedbeds which may cause disturbance to breeding birds (Sanpaul, Szabo *pers. obs.*). *Importance: unknown*.

***Climate Change***

No information. *Importance: unknown*.

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