

FERRUGINOUS DUCK IN GERMANY - DISTRIBUTION AND PROTECTION OF GERMANY'S RAREST BREEDING BIRD

MARTIN SCHNEIDER-JACOBY

The Ferruginous Duck is the rarest breeding bird in Germany with only a few pairs and irregular breeding success (Bauer, 1996; Herkenrath, 1996). As in other European countries, the German population of Ferruginous Duck has decreased rapidly over the past few decades (FMENN, 2002) and the species is already extinct in Eastern Germany. Today, however, new records give hope that the breeding population may recover to former levels (Reusse *et al.*, 2001). In 1999, one nest and in 2000 two broods were found at sites between Saxony and Brandenburg where the species had not bred for over 15 and 17 years, respectively. Both sites are carp fish farms - extensive management of such sites in eastern Germany will be an important factor determining the extent to which the Ferruginous Duck can re-establish itself in the country.

Lake Constance (Fig. 1) is situated outside the former breeding range of the Ferruginous Duck, but it is a historical moulting and wintering site for a small number of birds (Jacoby *et al.*, 1970). An increasing breeding population has developed at Lake Constance since the first breeding record in 1979 (Schneider-Jacoby, 1998/99, 2000). The Ferruginous Duck is one of a number of duck species at Lake Constance, which have increased as a result of the production and implementation of single species action plans (Heine *et al.*, 1998/99; Schneider-Jacoby, 2000).

Priorities for future management of the lake for Ferruginous Duck and other waterfowl include the preservation of the

shallow open water areas and flooded reedbeds (H'lzinger & Schneider, 1987), and the creation and management of a system of protected zones on and around the lake (Bodensee Stiftung, 1997). Since 1979, protected zones, in which boating is prohibited, have been established (Schneider-Jacoby, 2001). The first breeding record of Ferruginous Duck in Germany was recorded at one of these, the Hegne Bucht, which is part of the Wollmatinger Ried Ramsar site (Jacoby & Dienst, 1988). During the summer peak of tourist activity, when 50 000 boats are present on Lake Constance, these protected zones hold most of the lake's breeding and moulting birds (Schneider-Jacoby *et al.*, 1993). The success of such zonation is illustrated by the fact that following an increase of only 3% in the protected areas of the lake, the numbers of waterfowl in late summer increased from 30 000 to more than 100 000 (Heine *et al.*, 1998/99; Schneider-Jacoby, 2001).

Today, the most important site for moulting Ferruginous Duck is the 105ha Mindelsee (Thielcke, 1996), which is totally protected and a moulting site for up to 10 000 Tufted Ducks *Aythya fuligula*. Ferruginous Ducks have been recorded here since monitoring began (Jacoby *et al.*, 1970) and a moulting concentration has increased since the early 1990s (Fig. 2; Schneider-Jacoby, 1998/99). During autumn and winter, protected zones on Lake Constance hold 250-270 000 birds (Schneider-Jacoby, 1987). Due to the large numbers of birds present, it is difficult to count Ferruginous Ducks at this time of the year and most observations are from the Untersee, a shallow,

Naturschutzgebiete in der Flachwasserzone des Bodensees (Stand Mai 1999)

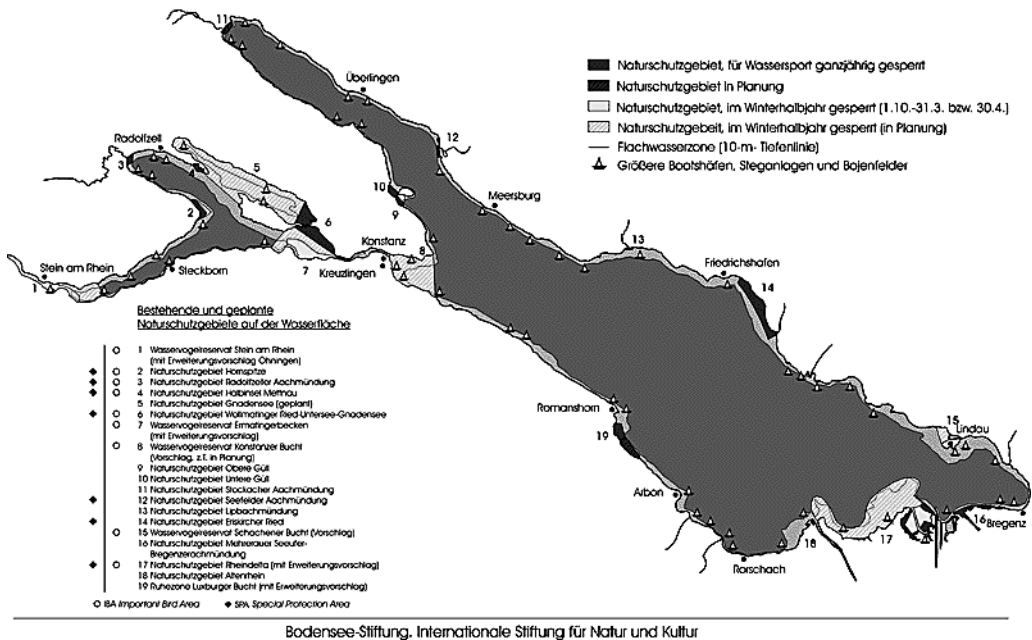


Fig. 1: Lake Constance - general view and zoning - <http://bodensee-ornis.de/oab/>

mesotrophic part of the lake situated between the inner Rhine delta and the outflow of the lake.

Following a hunting ban over the most important sites on Lake Constance, wintering waterfowl numbers have increased considerably (Schneider-Jacoby *et al.*, 1991; Marti & Schifferli, 1995). For example, waterfowl numbers at the Wollmatinger Ried and Ermatinger

Becken increased from a few hundred to 50 000 (Frenzel & Schneider-Jacoby, 1987; Schneider, 1986; Schneider-Jacoby, 2001; OAB, *unpubl. data*).

Habitat management, including the creation of artificial islands, plus small pools and canal systems in adjacent marshes, has improved conditions for breeding birds (Schuster *et al.*, 1983; Schneider-Jacoby, 2000). Today, breeding pairs and single birds are observed in all major protected areas around the lake, such as the Rhine Delta (Austria), the Ermatinger Becken (Germany/Switzerland) and several sites at the Untersee and überlinger See (Schneider-Jacoby, 1998/99; OAB, *unpubl. data*). In recent years, Ferruginous Ducks have also been observed at a number of smaller lakes near to Lake Constance, such as the Mindelsee and B,ndlis Ried. Breeding

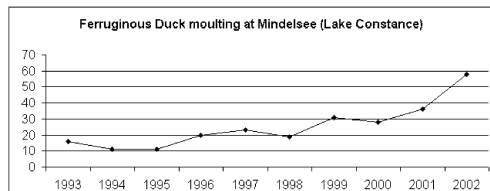


Fig. 1: Numbers of Ferruginous Duck at Mindelsee, Lake Constance, 1993-2002 (OAB *unpubl. data*; Schneider-Jacoby, 1998/99; Schlenker, *pers. comm.*; Thielcke, 1996).

has also been confirmed at a site about 10km from the lake in Switzerland (Leuzinger, 1992). Broods are rarely observed, but the increasing number of summer observations and the increase in moulting birds at the Mindelsee indicate a slow but steady growth of the population since the 1970s. At least five breeding pairs have been observed in recent years, but the size of the moulting concentration at the Mindelsee (Schuster & Thielcke, 2003) suggests the population may be three times higher than this.

The most important protected areas for Ferruginous Duck at Lake Constance are managed by the NGOs BUND (Mindelsee) and NABU/BirdLife Germany (Mettnau, Wollmatinger Ried). Monitoring of breeding and wintering birds at Lake Constance has been organised since the late 1950s by the Ornithologischen Arbeitsgemeinschaft Bodensee (OAB), a working group of volunteers from all three countries bordering the lake (Jacoby *et al.*, 1970; Schuster *et al.*, 1983; Heine *et al.*, 1998/99, <http://bodensee-ornis.de/oab/>).

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