



Ruddy duck

(*Oxyura jamaicensis*)

Managing ruddy ducks in France

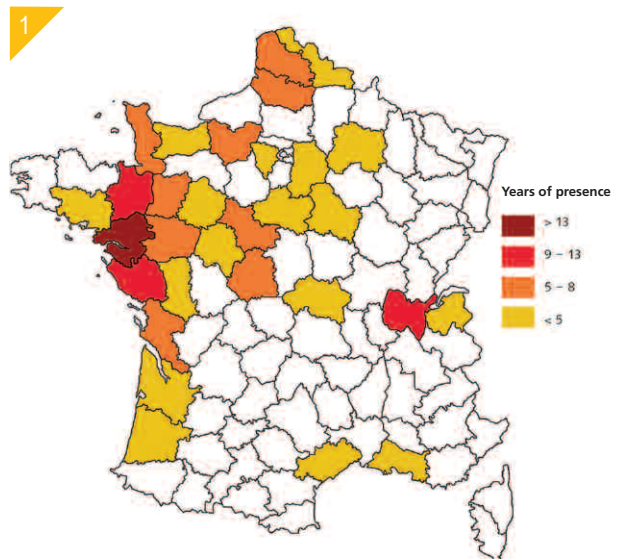
National agency for hunting and wildlife (ONCFS)

■ Research department - Bretagne-Pays-de-la-Loire regional office

- ONCFS is a public agency placed under the supervision of the Ecology and Agriculture ministries.
- Five of its main missions correspond to the guidelines contained in the Grenelle environmental agreement:
 - policing activities for the environment and hunting;
 - research and studies on wildlife and its habitats;
 - technical support and advice;
 - develop environmentally friendly hunting practices and management techniques for rural areas;
 - organise and run examinations for hunting permits.
- The Bretagne-Pays-de-la-Loire regional office covers 9 departments with a work force of 130.
- Contact: Research department
 - jean-baptiste.mouronval@oncfs.gouv.fr,
 Bretagne-Pays-de-la-Loire regional office
 - jean-francois.maillard@oncfs.gouv.fr

Intervention site

- The presence in Western Europe of the ruddy duck, a small, diving duck from the Americas, is due to ducks that in 1953 escaped from breeding centres, notably from the Wildfowl and Wetlands Trust in Slimbridge (U.K.).
- The presence of ruddy ducks in France was documented in 1974 and initial proof of its breeding was obtained in 1988 (Perennou, 1997). The regular presence of potential breeders was observed in the Pays-de-la-Loire region, in particular in the Mayenne and Loire-Atlantique departments (Grand-Lieu Lake).
- Since the creation of a monitoring system and the start of eradication operations in 1997 by ONCFS and its partners, ruddy ducks have been observed on 75 sites in 30 departments. The Loire-Atlantique, Mayenne, Vendée and Ile-et-Vilaine departments represent the strongholds of the species.
- During the winter period (November to February), virtually the entire population gathers in the Grand-Lieu Lake in the



1. Sites where ruddy ducks have been observed in France since 1997.

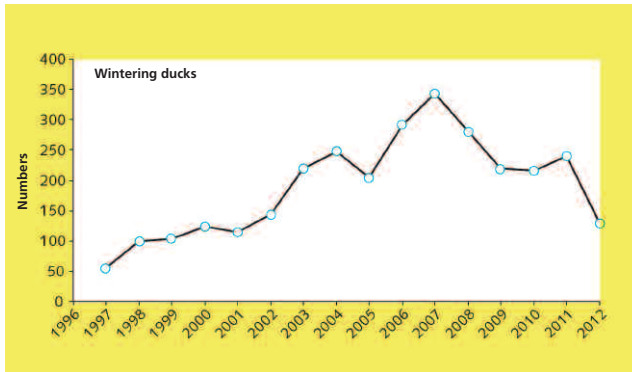
Loire-Atlantique department, where the numbers reach a peak in December (Reeber, 2012). The numbers of ducks gathering in the winter rose sharply from 1997 to 2007, then fell rapidly. The drop in numbers coincided with a fall in the population in the U.K., where an intense eradication effort had been undertaken.

Disturbances and issues involved

- The invasive potential of ruddy ducks is high in that, in the U.K., its numbers were estimated at 350 ten years after its introduction and at almost 6 000 by the time eradication measures were launched shortly after 2000.
- In addition to its invasive potential, the presence of ruddy ducks is a problem because it can create a hybrid with white-headed ducks and thus compromise the long-term survival of the latter (Muños-Fuentes *et al.* 2007).
- The total population of white-headed ducks probably numbers less than 15 000, spread over three main areas (Eastern Mediterranean, Western and South-western Asia, Spain/Morocco and Northern Africa). They are considered threatened and a European action plan exists for their survival.

■ Hybridisation with ruddy ducks is seen as the main threat to the survival of white-headed ducks, particularly for the population in South-western Europe (Hughes *et al.*, 2004).

Numbers of ruddy ducks wintering in France (1996-2012).



2. Male white-headed duck.

Interventions

■ In 1992, when the threat had become clear, a monitoring and management strategy was set up and included a study on the feasibility of eradication.

■ The eradication trials in the U.K. and Spain produced rapid results and it was decided to generalise the successful approach to all European countries, including France. France committed to eradicating the species by 2015. The country is thus in compliance with its international obligations, notably the recommendation of the Berne convention concerning the eradication of the ruddy duck in the Western Palearctic, but also more generally with the recommendations of numerous international agreements on the management of invasive alien species.

■ Since 1997, almost 1 200 birds have been eliminated, of which almost half on Grand-Lieu Lake by the personnel of the nature reserve.

■ Population monitoring and reports

■ The objectives of the monitoring programme for ruddy ducks set up in 1996 were to:

- estimate the size of the breeding population via counting operations during the summer;
- estimate the size of the wintering population;
- assess the effectiveness of the eradication work.

To that end, special surveys were conducted with the assistance of observer networks in the framework of more general surveys on water birds, carried out in a partnership with hunting federations, naturalist surveys and those conducted by the managers of protected zones.

■ The observations made during these surveys as well as those made regularly throughout the year enabled the elimination of the birds by authorised ONCFS personnel and by personnel of the Grand-Lieu Lake national nature reserve.

■ Processing of the protocol data and organisation on the national scale was done by the ONCFS research department. The data was then transmitted to the Ecology ministry for inclusion in the report to the EU commission.

■ Elimination of the ducks

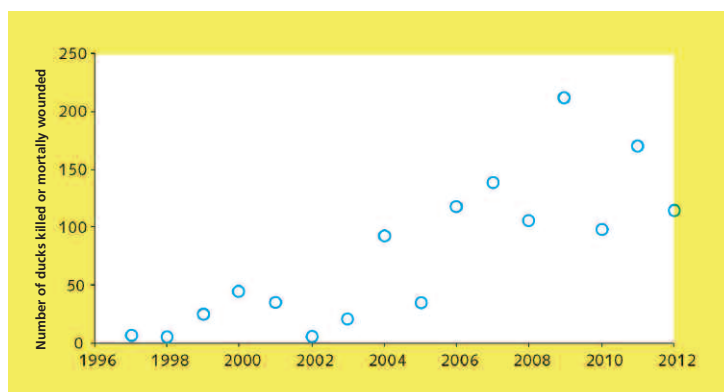
- The ministerial decree dated 12 November 1996 authorises shooting of ruddy ducks anywhere and any time by authorised personnel of the ONCFS and the nature reserves.
- The work is subject to prior agreement with pond and lake owners.
- Two main techniques are used, depending on the layout of the site and the period of the year.
 - Shooting from a hide at mid to long distance:
 - one person alone or in a group of two;
 - when the birds are nesting during the breeding season;
 - using a 22 long rifle equipped with a moderator to limit disturbances and a magnifying scope;
 - the shooters are hidden in the vegetation;
 - precise safety measures are implemented.
 - Driving and shooting from a short distance:
 - this technique requires a group of people;
 - the ducks are driven by a boat or canoe toward to shooters in boats or on land;
 - this technique is used essentially during the moulting and/or wintering season (the birds are grouped together);
 - 12-gauge shotguns are used with steel shot;
 - good coordination is indispensable to ensure safety.

Results and assessment

■ Results

- The wintering population of ruddy ducks would appear to be declining in France.
- This result is without doubt due to the joint eradication efforts in France and particularly in the U.K. where the population numbers dropped from 6 000 just after the year 2000 to 130 today.
- In spite of the eradication efforts, the number of breeding ducks has not dropped as significantly (the number is currently estimated at 40 couples), but the increase in numerical and geographic terms would seem to have been halted.
- The current range is limited to 6 or 7 departments, particularly in the Pays-de-la-Loire region.

Numbers of ruddy ducks shot in France (1997-2012). Source: Caizergues and Maillard, 2013.



3. Shooting across water.
4. Driving the ducks to the shooters.
5. Monitoring and management work for ruddy ducks by ONCFS personnel on the Grand-Lieu Lake.
6. Brochure to raise awareness concerning ruddy ducks.

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Outlook

- A national action plan requested by the Ecology ministry is in the process of being finalised by ONCFS in view of reaching the international objectives.
- The management work undertaken over the past 15 years provides a number of ideas on how to improve the strategy:
 - improve detection of the breeding population, notably on secondary sites;
 - increase the human and financial resources available for projects;
 - develop additional control methods (call ducks, float tubes, etc.);
 - target the females that are more discreet when the couples have nested;
 - work on improving regulations, raising awareness and informing the legal owners of ruddy ducks.

Information on the project

- Monitoring and management work was presented during a number of international workshops (U.K. 2007, France 2008, Spain 2010).
- ONCFS and the Ecology ministry published a brochure on ruddy ducks in 2012.
- Articles were published in the ONCFS bulletin.
- Management techniques and results are presented during training courses and national events.

Authors: Alain Caizergues, Jean-François Maillard, Jean-Baptiste Mouronval, ONCFS

For more information

- ONCFS internet site:
www.oncfs.gouv.fr
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