

- second mowing after 1 September; and
- fertilization is not permitted.

Beyond this there is agrarian state support which means that with little effort a subsidy of 2,000 DM/ha can be reached.

Up to now these programmes have not had any great success in conserving meadow birds. This is especially because the most important habitat parameter for the meadow birds, the water level, has been ignored. This is largely due to the opposition of the farmers.

The law on the protection of biotopes has recently been included in the nature conservation law of the Federal Republic of Germany. Accordingly wet meadows with an abundant sedge and rush vegetation must not be changed in any way. The protection of biotopes differs from the protection of areas due to its coming into force immediately by law and not after, often unending, procedures by decree. Therefore it is an important improvement on principle.

The transfer of this determination to the laws of the federal states is, however, still delayed. So far it has not produced any effect, since the nature conservation law of the Federal Republic of Germany has no direct legal force in individual states: it is only a framework law.

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# Waders Breeding on Wet Grasslands in France

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This paper summarizes some of the results of a report on breeding waders in France (Dubois & Mahéo 1986). The population size and population trends of waders breeding on wet grasslands in France are: Oystercatcher 790-850 pairs, stable; Lapwing 14,400-20,300 pairs, declining; Ruff 5-13 females, stable; Snipe 100-185 pairs, declining; Black-tailed Godwit 85-110 pairs, stable; Curlew 1,230-1,360 pairs, declining; Redshank 429-496 pairs, stable-declining. The main reason for the declines is the destruction and/or modification of breeding habitats by drainage and/or agricultural practices.

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## Introduction

This paper briefly reviews the situation of waders breeding on wet grasslands in France. Nearly all the information was taken from the

comprehensive report 'Limicoles Nicheurs de France' (Dubois & Mahéo 1986). This report is mainly based on an inquiry in 1984. The numbers of breeding pairs and the population trends given in this review still basically hold

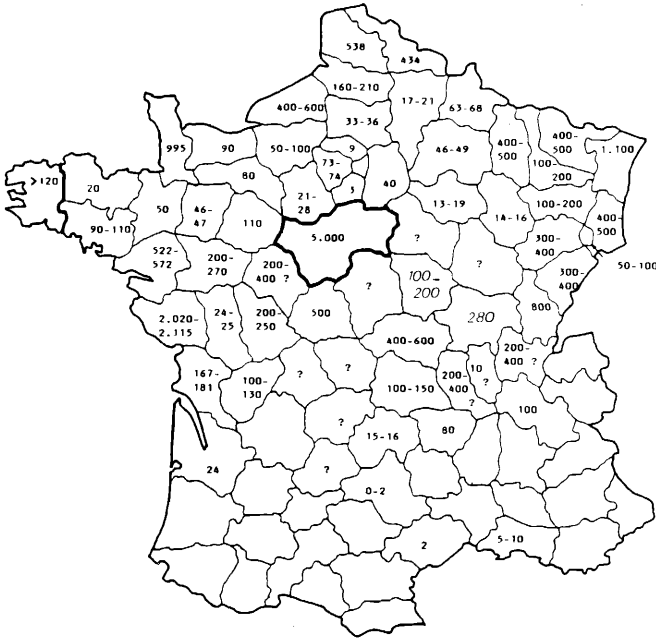


Figure 1. Breeding distribution of Lapwing in France (from Dubois & Mahéo 1986).

true. Unfortunately not very much has been done in the meantime to protect wet grasslands as a breeding habitat for waders in France.

In this paper six wader species are considered as grassland (meadow) birds: Lapwing *Vanellus vanellus*, Ruff *Philomachus pugnax*, Snipe *Gallinago gallinago*, Black-tailed Godwit *Limosa limosa*, Curlew *Numenius arquata* and Redshank *Tringa totanus*. In the Vendée in western France Black-winged Stilts *Himantopus himantopus* also breed on wet grasslands. Since only a small part of the population occurs in this habitat, the species will not be considered here.

Oystercatchers *Haematopus ostralegus* breed mainly on the coast in France as is the case in other countries. Breeding inland has only rarely been reported, and the species does not seem to breed on wet grasslands in high numbers. Therefore the Oystercatcher can not be considered to be a 'meadow bird' in France (in contrast to the Netherlands). The Oystercatcher population in France consists of 790 - 850 pairs and seems to be stable.

### Lapwing

The Lapwing is the most common breeding

wader in France. It breeds mainly in the northern and central parts of the country (Figure 1). The population size in 1984 was estimated at 14,400 - 20,300 pairs.

In the 19th century the species was not very common in France. In the first half of this century, probably in the 1940s, the population increased rapidly and the breeding area expanded. In some areas this population expansion lasted until the 1970s. In most of the departments, however, a severe decrease has been noted in recent years (Table 1). The national estimates dropped from 39,500 - 40,000 pairs in 1961 (Spitz 1961) and 31,450 - 45,240 pairs in 1964 (Spitz 1964b) to 21,000 in 1979 (Mahéo, unpublished report). The population is still decreasing rapidly (for example in the Marais Poitevin, Vendée, Blanchon & Dubois pers. comm.).

Table 1. Changes in population size of Lapwings in France.

Etang de St Quentin	1953	30	Dubois, pers.observ.
	1975	5	Dubois, pers.observ.
	1984	0	inquiry 1984
Aisne	1965	50-100	Kérautret 1969
	1984	17-21	inquiry 1984
Alsace	1976	1200-1800	Kempf 1976
	1984	1500-1600	inquiry 1984
Sologne, Loitret et Loir-et-Cher	1961	20000	Spitz 1961
	1975	5-10000	Perthuis 1976, 1981
	1984	5000	inquiry 1984
Brenne et Indre	1961	2000	Spitz 1961
	1977	1000	Hyvert in Perthuis
	1984	500	1981, inquiry 1984
Bretagne	1978	3000-3500	Annezo et al. 1978
	1984	1000+	inquiry 1984
Grande Brière	1978	1200	Annezo et al. 1978
	1984	250-300	inquiry 1984
Marais breton (Vendée, Loire-Atl.)	1961	5000	Spitz 1961
	1978	3000-3500	Annezo et al. 1978, Metais pers. comm.
	1984	1515-1555	inquiry 1984
Marais poitevin	1961	3000-5000	Spitz 1964a
	1982	500	Blanchon, Dubois
	1984	420-455	1982, inquiry 1984
	1989	<350	Blanchon & Dubois, pers. comm.
Camargue	1980	20-30	Blondel, Isenmann
	1984	5-10	1981, inquiry 1984

The majority of French Lapwings breed on grasslands, preferably moist pastures or meadows with short vegetation cover. Arable land is the second most important breeding habitat; in some departments it is even the most important biotope for this species.

The main reason for the decline of the Lapwing population in France is the loss of habitat due to drainage of wet grassland. About 50 % of the population is affected. Dry and improved grassland is not colonized to a large extent by this species. There are indications, that the Lapwings breeding on arable land do not reproduce well enough to keep their population stable. For conserving the French Lapwing population the drainage of wetlands has to be stopped.

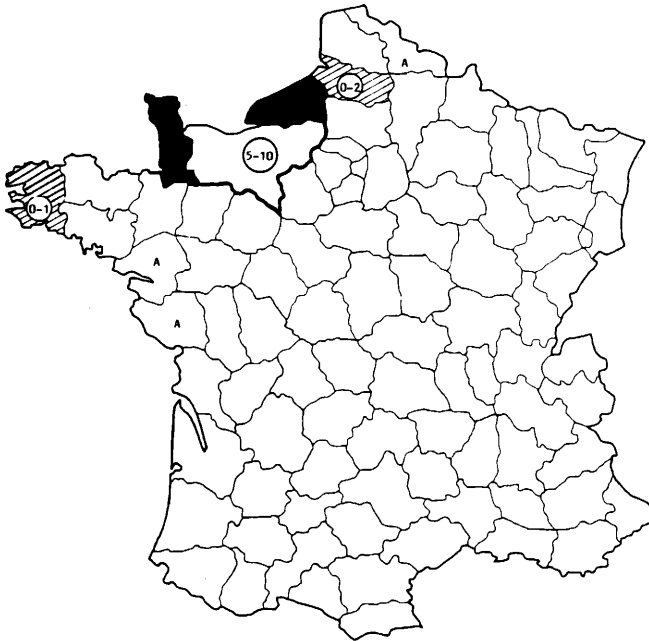


Figure 2. Breeding distribution of Ruff in France (from Dubois & Mahéo 1986). Black: regular breeding; hatched: occasional breeding; A: ancient nesting site.

### Ruff

No more than 5 - 13 Ruffs still breed in France, most of them near the coast in the northern part of the country (Figure 2). There are no indications that the species has been more common in former times. Breeding occurs mainly on coastal marshes and on wet meadows. Some of the marshes are endangered by industrial developments. Most breeding sites are reserves. The ongoing loss

of habitat due to drainage threatens the population.

### Common Snipe

The Snipe mainly breeds in the northern part of France (Figure 3). The total revealed by the enquiry in 1984 was 100 - 185 pairs; this probably reflects the minimum size of the population. The population size, however, did not exceed 250 pairs in that year. There has been a sharp decline of the population of Snipe in France in recent years. Snipes breed on wet meadows, swamps and bogs. The population is threatened by habitat loss and also by the very early opening of the hunting season, in mid July, which affects the breeding birds. All breeding sites of the species have to be placed under protection in France in order to save the breeding population. The opening of the hunting season should be delayed until September at least if this species is to be rescued as a breeding bird in France.

### Black-tailed Godwit

The Black-tailed Godwit breeds, in France, mainly on wetlands close to the coast (Figure 4). The total breeding population was esti-

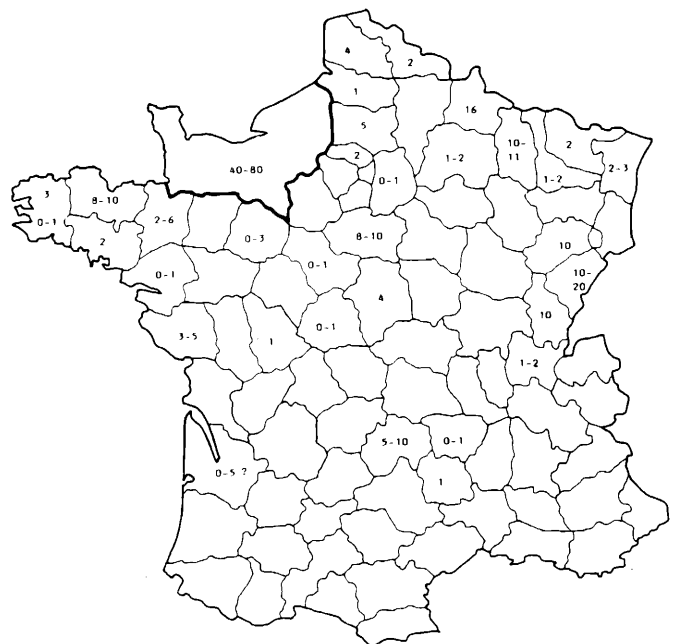


Figure 3. Breeding distribution of Common Snipe in France (from Dubois & Mahéo 1986).

mated to be 38 - 51 pairs in 1984. Despite considerable annual fluctuations the population remained stable in the 1980s. A recent national estimate revealed 85 - 110 pairs (Trolliet & Ibanez 1990). The species was first noticed breeding in France in 1936. The breeding population increased in size up to the 1970s. Black-tailed Godwits mainly breed on grassland which is regularly flooded during part of the year. In order to save the species in France all regular breeding sites must be protected, this means that drainage of the sites must be stopped and traditional

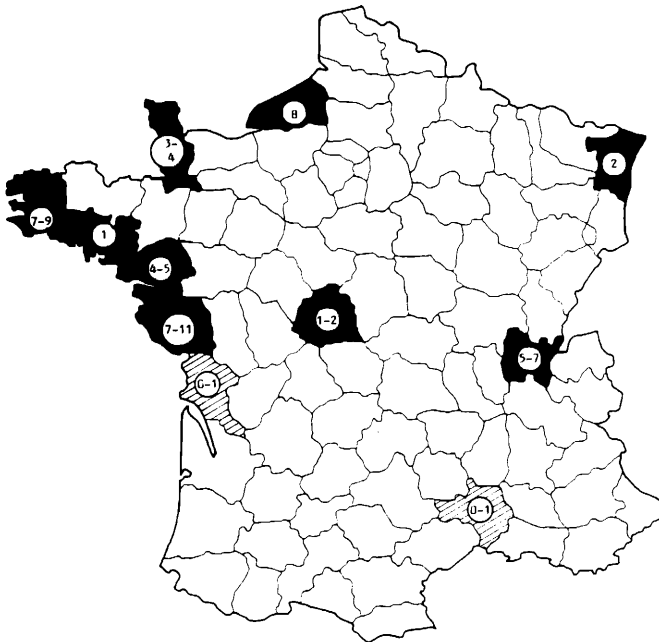


Figure 4. Breeding distribution of Black-tailed Godwit in France (from Dubois & Mahéo 1986). Black: regular breeding; hatched: occasional breeding.

farming techniques have to be re-established. The hunting of Black-tailed Godwits is still allowed. This should be stopped.

### Curlew

Curlews mainly breed in the northwestern, northeastern and central eastern parts of France (Figure 5). The total French breeding population is 1,230 - 1,360 pairs. An increase in the French population has been reported from some areas for the 19th and the beginning of the 20th century. At present this population is declining in most areas. Most French Curlews breed on wet grassland, especially on mown meadows, and on heath-

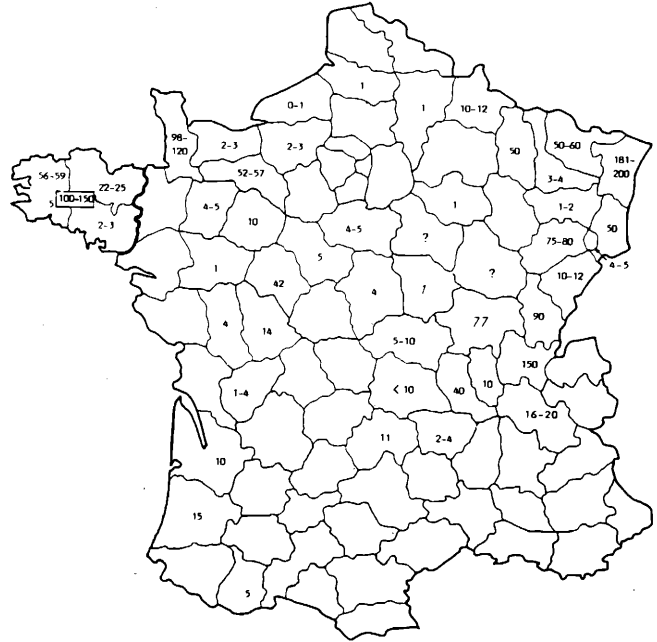


Figure 5. Breeding distribution of Curlew in France (from Dubois & Mahéo 1986).

land. Breeding on arable fields has become important in recent years.

The French Curlew population is threatened by loss of breeding sites, especially the loss of boggy heaths. Drainage and the abandonment of grazing are the main threats for these breeding sites. The severe hunting pressure on the species may also reduce the population. Breeding sites should be protected and hunting should be prohibited after January.

### Redshank

Redshanks in France breed almost exclusively near to the coast (Figure 6), either in salt marshes or on wet grassland. Wet grassland is the most important habitat in the Vendée in the centre of the French range of this species. The national estimates have dropped from 900-1,000 pairs in 1961 (Spitz 1961) to 620 in 1979 (Mahéo, unpublished report) and to 429 - 496 pairs in 1984. Reasons for the decline are the drainage of lagoons and waterways as well as the drainage and finally the destruction of wet grasslands. In order to protect the Redshank in France it is important to preserve the breeding sites. Drainage of wetlands has to be stopped. The early start of the hunting sea-