

**EUROPEAN UNION
MANAGEMENT PLAN
FOR
LAPWING *Vanellus vanellus*
2007 -2009**

July 2006



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and Tour du Valat (France)
on behalf of the European Commission

The European Commission (DG ENV B2) commissioned this Management Plan for Lapwing.

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Executive summary

The Lapwing *Vanellus vanellus* is listed on Annex II/2 of the EU Birds Directive as a species for which hunting is permitted in those Member States that have specifically indicated that hunting of the species can be allowed. Currently, there are open seasons for Lapwing in France, Spain, Italy, Malta and Greece. The available data suggest an annual harvest in the order of one million birds within the EU. In addition the eggs are harvested in one province of the Netherlands.

The global population of Lapwing is concentrated in Europe, where the species now has an Unfavourable Conservation Status both at Pan-European and at EU level. Its European breeding population was probably fairly stable until around 1990, but since then the species has suffered significant declines across most of Europe and underwent a large decline (> 30%) overall during 1990-2000. Consequently, at a European level, this previously secure species is now evaluated as Vulnerable and is classified as a Category 2 Species of European Conservation Concern (SPEC). The European population of Lapwing is estimated at 1.7 to 2.8 million breeding pairs.

The available demographic data indicate that the ongoing population decline is mainly caused by an insufficient production of fledglings, due to an increased clutch failure rate, reduced possibilities of re-nesting and poor chick survival. The main reason for this is agricultural intensification, which has affected – and is still affecting – the habitat of the Lapwing across most of its range. The major threats from agricultural intensification impacting on the Lapwing are identified in this Management Plan and are addressed in the activities suggested.

Site-based conservation measures, targeted, e.g., at areas inside the Natura 2000 network, are insufficient to safeguard dispersed species such as the Lapwing. In addition, conservation efforts must address the general deterioration of the agricultural landscape as a habitat for the species. Recent changes to the EU Common Agricultural Policy offer improved opportunities for this, e.g. through increased support for agri-environment schemes. The fate of the Lapwing in the EU is inseparably linked with the implementation of the CAP.

The available estimates of the bag size indicate that the annual harvest of Lapwing amounts to 13-24% of the autumn population. Although hunting is not the prime reason for the population declines, a harvesting of this magnitude is almost certainly incompatible with a restoration of the species to Favourable Conservation Status. Also considering the very low annual productivity (in the order of 0.5 fledged young per pair), harvesting at any level cannot at present be regarded sustainable. Consequently, a temporary hunting ban (and egg-harvesting) – initially for a five year period – is suggested. During this period, additional data on key population parameters should be collected.

The Goal (long-term objective) of the Management Plan is to restore the Lapwing to a Favourable Conservation Status in Europe. The hunting ban, which should initially apply for a five year period, will be an important step towards this goal. However, a reversal of the population trend is unlikely to occur before Lapwing-friendly management options have been implemented on a large scale for some years in a majority of Member States holding important Lapwing populations. Recognizing this, the Purposes (short-term objectives) of the Management Plan are (i) to put into force regulations, incentives and other initiatives that will contribute to restoring the Lapwing to a Favourable Conservation Status in Europe and (ii) to collect more robust data on key population parameters such as population size, trends and productivity.

To achieve this, the Management Plan specifies the following Activities to be undertaken by Member States within the initial three year period (2007-2009):

- (1) Ensure that hunting and egg harvesting seasons are closed in all Member States for a minimum of five years to assist the recovery of the European population of Lapwing.

- (2) Ensure that incentives for retaining and reinstating pastoral pockets in arable areas are available to all farmers.
- (3) Ensure that incentives for sowing crops in spring instead of in autumn are available to all farmers.
- (4) Ensure that incentives for retaining and reinstating damp or wet areas inside or adjacent to fields are available to all farmers.
- (5) Ensure that incentives for extensification of grassland management (e.g. through less effective drainage, low or no input of fertilizer/manure) are available to all farmers.
- (6) Ensure that incentives for maintaining and reinstating extensive grazing regimes are available to all farmers.
- (7) Ensure that incentives for using low or no input of pesticides and biocides are available to all farmers.
- (8) Ensure that incentives for omitting mechanical weeding, rolling and similar operations between 10 and 60 days after sowing of spring cereals or root crops in organically farmed areas are available to all farmers.
- (9) Ensure that no incentives for the raising of plantations, hedgerows or coverts on moist and mesic grasslands and meadows exist in areas with breeding Lapwing and that consideration is given to introducing incentives to remove such features from key lapwing breeding areas.
- (10) Ensure that a suitable, national programme for monitoring breeding populations of common farmland birds exists.
- (11) Initiate and/or support studies of Lapwing fledging success and causes of chick loss under different management regimes.
- (12) A suitable, national programme for monitoring wintering populations of Lapwing is developed for Member States with more than 100,000 wintering Lapwing.

The Management Plan is aimed at all Member States with breeding, staging or wintering Lapwing. It is the responsibility of the relevant authorities in each Member State to put into effect the Activities listed in the plan. It is also the responsibility of the relevant authorities of each Member State to decide how to implement the management prescriptions of this plan. The plan should be followed by new versions with revised objectives that take into account the results achieved during the first phase.

0. Introduction

The Lapwing *Vanellus vanellus* is listed on Annex II/2 of the EU Birds Directive as a species for which hunting is permitted in those Member States, which have specifically indicated that hunting of the species can be allowed. However, the Lapwing has been identified as a bird species that has an Unfavourable Conservation Status both at Pan-European and at EU level (BirdLife International 2004a, 2004b). The global population of the species is concentrated in Europe, but the species is not of global conservation concern; it is thus a Category 2 Species of European Conservation Concern (SPEC) (BirdLife International 2004a). Its European breeding population was probably stable between 1970 and 1990, but during 1990-2000 the species suffered significant declines across much of Europe and underwent a large decline overall. Consequently, at a European level, this previously secure species is now evaluated as Vulnerable according to IUCN Red List criteria (BirdLife International 2004a).

On this background, it is important to assess the current conservation status of the species and the available research information in order to appraise the current effectiveness of conservation actions, identify reasons for the observed trends and recommend options for future management to restore the European Lapwing populations. Hence, this plan will focus upon the full implementation of the provisions of the Birds Directive as they apply for this species.

The overall format of this Management Plan follows a Single Species Action Plan format developed by BirdLife International for UNEP/AEWA Secretariat (AEWA 2002). However, parts of the plan, including some tables, have been modified to accommodate the specific needs of a plan dealing with a widespread species that only to a minor extent is linked with specific localities (IBAs, Protected Areas etc.), which might be targets of site-based management activities.

Ideally, the management prescriptions of this plan should cover the entire geographical range of the Lapwing populations concerned. However, as the implementation of the plan is part of the fulfilment of the EU Birds Directive, the geographical scope of the plan is at this stage limited to the 25 EU Member States.

The first chapter of the Management Plan presents a summary of key information on the West Palearctic Lapwing populations. The second chapter provides more detailed information on the populations that occur in Europe with the focus on the 25 EU Member States. Chapter 3 analyses the threats that are believed to be the causes of the decline while chapter 4 lists the policies and legislation relevant for Lapwing management in Europe.

Chapter 5 evaluates the status for the Lapwing in the EU and sets out long-term and immediate objectives (goal and purposes) for its future management.

Chapter 6 describes the actions to be taken in the EU in the short term (initial three year period). These activities cover all current Members States with breeding, staging or wintering Lapwing.

It is the intention that this management plan shall be revised after three years.

1. Biological Assessment

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| General information | <p>The Lapwing <i>Vanellus vanellus</i> is unique among Palearctic waders. It is an unmistakable, medium-sized, strikingly crested and boldly patterned wader with a dramatic plunging display flight. Because of its attractive appearance and behaviour, it is a very popular species that over large parts of its temperate range is viewed as a harbinger of spring.</p> <p>The Lapwing occurs over a very wide breeding area, ranging from the Atlantic to the Pacific Ocean between 35° and 70° northern latitude. Being linked with flat, open areas, especially moist and mesic grasslands, its natural breeding habitat for centuries has been encroached upon by man, who has concurrently created suitable substitutes, largely by farming. The species is mainly migratory, wintering south and west of the breeding areas.</p> <p>The Lapwing is listed on Annex II/2 of the EU Birds Directive (79/409/CEE) as a species for which hunting may be permitted in eight countries (Belgium, Denmark, Greece, Spain, France, Ireland, Italy and Malta). Egg-collecting is permitted in one province (Fryslân) in the Netherlands. In recent decades the species has suffered significant declines across most of its European range. Consequently, it now has an Unfavourable Conservation Status both at Pan-European and at EU level.</p> |
| Taxonomy | <p>The species is monotypic. No morphological variations are known (Trolliet 2000). Only one population is recognized in Europe (Delany & Scott 2002).</p> |

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| <p>Population development</p> | <p>The breeding range of the Lapwing showed a large-scale northward expansion in NW Europe and Russia from the late 19th century, probably linked with climatic amelioration and the spread of farming (Snow & Perrins 1998, Thorup 2004).</p> <p>Concurrently with this range expansion, Lapwing breeding populations declined in many parts of Europe in the 19th century and early 20th century owing to habitat changes and egg-collecting. Since 1940, widespread increases have occurred in some areas and decreases in others. The long-term changes are often difficult to interpret because they are masked by short-term fluctuations linked with the severity of winters (Snow & Perrins 1998).</p> <p>Between 1970 and 1990 the European breeding population was probably stable, population declines in Fenno-Scandia, UK, Germany and many other countries being counterbalanced by stability or increase of the large populations in Russia, Belarus and the Netherlands (BirdLife International 2000).</p> <p>More recently, the species has suffered significant declines across the central parts of the European range, involving all major populations, and it underwent a large decline overall during 1990-2000 (BirdLife International 2004a). In this period some northern populations, which had previously declined, stabilized at a new, lower level, while some small populations in southern and central Europe were stable or increased. According to data from the European Bird Census Council, covering 18 countries, the European population underwent a 38% decline during the period 1990-2003 (Vorisek 2005).</p> <p>Since 1970, population declines have been reported from all European countries holding more than 50,000 breeding pairs of Lapwing: Finland (1970-1990), Sweden (1970-1990), Norway (1970-2000), UK (1970-2000), Germany (1970-2000), Hungary (1970-2000), Netherlands (1990-2000), Russia (1990-2000), Belarus (1990-2000), Poland (1990-2000) and Ukraine (1990-2000). The important Dutch population has decreased a further 2%/year since 2000.</p> <p>Conversely, the number of Lapwing recorded on midwinter counts has increased during the period 1989-2002, both in NW Europe and in the Mediterranean area (Wetlands International; http://www.wetlands.org).</p> |
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| <p>Distribution throughout the annual cycle</p> | <p>The Lapwing is a Palearctic species, breeding in upper and lower middle latitudes, from boreal and temperate to steppe and Mediterranean zones. Towards the north, its breeding range reaches the Arctic Ocean in NW Russia and Norway. At the western extreme it reaches Iceland (irregular breeder), Ireland, Spain, Portugal (first breeding record 1993) and north-westernmost Morocco. Distribution in the southernmost part of the range is patchy, but from the Iberian peninsula and Morocco the southern limit passes through Greece and Turkey to north-western Iran. Beyond the West Palearctic, the breeding range extends east across southern Siberia and northern central Asia to Ussuriland and northern China (Snow & Perrins 1998).</p> <p>The species is mainly migratory, although some western and southern sub-populations are only partially migratory. Within the West Palearctic it winters in western Europe and in the Mediterranean and Middle East countries. It is sensitive to prolonged cold; hence the winter distribution (and the associated migratory pattern) reflects a preference for a maritime climate and a general avoidance of continental climates (Snow & Perrins 1998).</p> <p>Post-breeding dispersal begins in May and peaks in June when some adults in particular, make long movements. Many of these head towards the Benelux countries and Britain. Direction of movement is mainly south-west for Scandinavian and Baltic birds and west or north-west for birds from eastern and south-eastern Europe (Imboden 1974). Some birds pass south-west to Italy and southern France (Snow & Perrins 1998).</p> <p>Summer movements merge into autumn migration during September-November as increasing numbers of juveniles leave their natal areas. Migration occurs over a broad front, in a generally south-westerly direction towards and along the western seaboard and into Iberia and North Africa, occasionally reaching as far south as the Senegal delta (Pienkowski & Knight 1977, Girard & Triplet 1992). Other Lapwings pass through Italy to reach Algeria and Tunisia. Generally, the further east the origin of the Lapwings, the further east their migration routes and wintering areas.</p> <p>The UK and Ireland constitute the northernmost regular wintering areas, although small flocks also remain in the Low Countries and the Wadden Sea area of Denmark and Germany (Snow & Perrins 1998). Approximately one third of the British Lapwings winter within the British Isles, the others moving to the continent. The majority of the European population, including birds of Russian origin, winter in countries ranging from the Benelux to Morocco (Imboden 1974, Bak & Etrup 1982, Leitão & Peris 2004, Pettersson 1982, Trolliet 1986, Girard 1989, Asensio 1992).</p> <p>In the northern parts of the wintering area, serious cold spells lead to pronounced movements. These movements, which may involve massive numbers, can force some birds inhabiting the British Isles to move to France and join up with continental birds converging in south-western France, the Iberian Peninsula and Morocco. In other cases, birds move from the continent to the UK and Ireland.</p> <p>The onset of spring migration is difficult to determine because hard-weather movements, after the return of milder weather, are followed by northward movements. According to Snow & Perrins (1998) spring passage begins as early as late January in the southern wintering areas. Migration peaks in early March in central Europe and in late March in northern Europe (Imboden 1974). Spring migration generally follows a more easterly route than the post-breeding movements (Imboden 1974, Dall'Antonia et al. 1996). Males tend to migrate earlier than females (Trolliet 2000).</p> <p>The breeding grounds are re-occupied in March-April, averaging later in the north and east (Snow & Perrins 1998).</p> |
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Survival and productivity

According to Thompson et al. (1994), 67% of the Lapwings breed for the first time at the age of 1 year, 27% at 2 years and 6% at 3 years.

Trolliet (2000) compiled data from studies performed earlier over most of Europe and concluded that, on average, approximately 60% of all completed clutches hatched at least one egg. Main causes of nest loss are ground and avian predators, farming operations and in some areas livestock trampling. Partial losses are not infrequent, and 6-7% of the eggs are infertile or contain dead embryos. Predation rates are higher in grassland than on cultivated land, but losses due to farming operations are lower (Galbraith 1988, Shrubbs 1990).

Between the mid-1970s and 1999, clutch failure rate increased in the UK (Chamberlain & Crick 2003). Current productivity is probably lower than that estimated by Trolliet (2000) in large areas (see below). On average 30% of the clutches in the Netherlands are predated while 6-9% are lost to farming. Predation rates differ between years and are higher in dry and semi-open compared to wet and open habitats (Teunissen et al. 2005).

In studies of chick survival from the UK, Netherlands, Germany and Switzerland between 0 and 42% of the hatched young (mean 21%) survived to the age of fledging (Glutz et al. 1975, Jackson & Jackson 1975, 1980, Matter 1982, Galbraith 1988, Beintema 1995). In the Netherlands in 2003-2005 on average 14% survived to the age of fledging, although the variation between areas and years is large (Teunissen et al. 2005). Chick survival may be dependent (Galbraith 1988) or independent (Klomp & Speek 1971) of hatching date, but is higher on grasslands, especially extensively managed grasslands, than on cultivated areas. Main causes of chick loss are starvation/cold and predation. In the Netherlands in 2003-2005 predation and farming operations are the main causes of chick loss (Teunissen et al. 2005).

Annual productivity (no. of fledglings per female or pair) has been measured as follows: UK: 0.88 (Jackson & Jackson 1975), 0.52 (Jackson & Jackson 1980), 0.62 (Galbraith 1988), 0.70 (Baines 1989) – several unpublished studies have shown virtual breeding failure across a range of habitats and regions. Denmark: 0.57 (Ettrup & Bak 1985). Germany: 0.55 (Kooiker 1984), 1.20 (Kooiker & Buckow 1997), Belgium: 0.98 (Impe 1988), Switzerland: 1.57 (Heim 1978), 0.42 (Matter 1982) and Netherlands: 0.8-1.0 (Den Boer 1995) but probably lower in recent years.

According to recently published results the estimated average productivity of 0.8 fledglings per female/pair per year (Trolliet 2000) should be regarded as an overestimate. In large parts of Central and western Europe only 0.4-0.6 fledglings per female/pair per year can be expected. The productivity rate is obviously decreasing (NABU, unpublished compilation of recent reports).

Survival rate of young Lapwings is estimated at 0.56-0.62 from August to 31 March the following year (Glutz et al. 1975, Bak & Ettrup 1982, Peach et al. 1994). This rate does not seem to have changed since the beginning of the 20th century (Trolliet 2000). Most studies, however, do not include mortality from time of fledging until August; this mortality was 8.4% in a Danish study (Bak & Ettrup 1982).

Mean annual survival rate after 1st year was estimated at 0.68 by Glutz et al. (1975). A similar survival rate of 0.67 was estimated for Danish birds 1920-1978 (Bak & Ettrup 1982). Survival of British Lapwings has seemingly improved during the 20th century; the most recent rate is 0.79-0.83 for the period 1965-1988 (Peach et al. 1994, Catchpole et al. 1999). The sex ratio of adult Lapwings may be skewed in favour of males (Vaughan 1980), indicating a poorer survival of females.

Maximum age known in the wild is ≥ 25 years (Bak & Ettrup 1982). Life expectancy of young birds, alive in August, was 2.1 years for Danish Lapwings. For birds reaching adulthood, life expectancy was 2.5 and 3.5 years for Danish and British birds, respectively (Bak & Ettrup 1982, Peach et al. 1994). Generation length, defined as the average age of the parents of the current cohort, has been estimated at 5 years (BirdLife International 2004a).

| Life history | Breeding: | Feeding: | Outside breeding season: |
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| | <p>Egg-laying begins in mid- or late March in the Netherlands and UK. Start of laying is progressively later towards north and east of the range, and length of laying period becomes shorter. Single-brooded, but replacement clutches may be laid after egg loss, occasionally after loss of chicks (Klomp 1951). Unfledged young may occur until c. 1 September (Cramp & Simmons 1983).</p> <p>Usually monogamous. Territorial around the nest; solitary breeder or in loose neighbourhood groups, percentage of solitary breeders varies between studies (29-54%). Nesting groups usually ≤10 pairs with 10-150 m between nests. Nests in groups are generally more successful than solitary nests (e.g. Cramp & Simmons 1983, Berg et al. 1992, Salek & Smilauer 2002).</p> <p>Nest is a shallow scrape, lined with variable amount of vegetation. Placed on open ground, normally raised slightly (Snow & Perrins 1998).</p> <p>Clutch size normally 4, less often 3, rarely 2 or 5; mean 3.85 (Cramp & Simmons 1983). No seasonal variation; replacement clutches only marginally smaller than first clutches.</p> <p>Incubation 26-28 days: Steady incubation begins with last egg; earlier eggs are covered intermittently.</p> | <p>Forages on moist ground with bare spots or low vegetation of grass and herbs, along edges of pools or on fields with low or no vegetation. Breeding birds usually feed within 200-300 m of their nest (Christensen et al. 1996).</p> <p>Normally a diurnal feeder, but also feeds during bright moonlit nights in roosting fields. Almost all food is taken from ground where prey is located by sight and sound. Food-trembling is frequent (Cramp & Simmons 1983).</p> <p>Predominant food is ground-living arthropods, especially beetles, and earthworms. A wide range of insects are taken, probably in accordance with their availability. Vegetable matter (grass leaves and weed seeds) is of minor importance (Christensen et al. 1996).</p> <p>Importance of earthworms is difficult to assess from stomach analyses. Lapwings feeding in Swedish farmland and grassland in April, caught earthworms in 23% of all pecks (Högstedt 1974). In Scotland, Lapwings caught 0,2 - 0,5 large earthworms and 1,5 - 2,1 other items per minute spent actively foraging (Galbraith 1989a). Apparently, earthworms are mainly important in winter and early spring.</p> <p>Young pick their food opportunistically rather than selectively. Main food items</p> | <p>Highly gregarious. Flocks begin to form during May, at first mostly adult females, but also adults and immatures of either sex that have failed to pair or breed. Juveniles start flocking by mid-June. In early summer, some flocks are exclusively adults or juveniles, but later in season flocks are mixed (Cramp & Simmons 1983 and quotations herein).</p> <p>During migration and winter season, flocks may be vary large; up to 15,000 (Spencer 1953) or 35,000 (Parquin et al. 1955 quoted by Cramp & Simmons 1983).</p> <p>In winter, the species promptly vacates areas covered by snow or gripped by severe frost because it requires ready access to soil for feeding. Hard-weather movements may be pronounced and involve massive numbers.</p> <p>Flocks start breaking up mid-late February, latest mid-March (Spencer 1953).</p> |

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| | <p>Young are nidifugous and self-feeding. They grow slowly and are not fully homoiothermic until c. 3 weeks old (Beintema & Visser 1994). Fledging period is 30-42 days (Beintema et al. 1991, young become independent soon after fledging (Cramp & Simmons 1983).</p> | <p>are earthworms, beetles and larvae of <i>Tipulidae</i> and <i>Stratiomyidae</i> where water is present, also aquatic invertebrates, especially Chironomidae (Galbraith 1989b, Beintema et al. 1991, Ausden et al. 2003). Small chicks probably depend mainly on the surface fauna and where available, aquatic prey, soil invertebrates gaining importance as the chicks approach fledging age (Beintema & Visser 1994).</p> | |
| <p>Habitat requirements</p> | <p>Basic requirement is for open land, flat or gently undulating, that affords unbroken all-round view and does not impede easy walking. The Lapwing needs ready access to soil (not arid, preferably moist) with an appreciable amount of surface or subsurface prey organisms (Cramp & Simmons 1983).</p> <p>Originally, the species bred in grassy habitats (steppes, open grassland, peat bogs, moorland) where the structure of the vegetation remained short in spring because of the soil, climate and/or grazing by large herbivores. Natural sites still occupied are, e.g., coastal marshes, fens, bogs, moors and upland grasslands (to 800-1000 m).</p> <p>Forest clearance and the expansion of livestock rearing considerably increased the availability of suitable areas, and Lapwings are now widely distributed in semi-natural habitats such as meadows and pastures, where association with cattle or sheep is clearly favoured (Cramp & Simmons 1983).</p> <p>Vegetation heights below 15 cm are strongly preferred (Lister 1964, Flodin et al. 1990). Winter flooding improves conditions for breeding Lapwing by keeping the sward short and open and by creating suitable, wet feeding areas (Ausden et al. 2001).</p> <p>Lapwings frequently nest in arable land, where spring-sown fields offer suitable breeding conditions for a short period. Crop height should be below 8 cm in dense stands and 15 cm in more open crops (Glutz et al. 1975), although heights up to 30 cm may be tolerated in cereals (Lister 1964), particularly where the plants are unusually well-spaced.</p> <p>Small (< 5 ha) enclosed fields are avoided (Cramp & Simmons 1983). Proximity of good feeding areas for the chicks is essential; such feeding areas may be found within the field used for breeding or more frequently on adjacent grassland (Galbraith 1988, 1989a). In agricultural areas the optimum habitat may thus be a mosaic of spring-sown fields and permanent grassland (e.g. Shrubbs & Lack 1991, Petersen 1996, Wilson et al. 2001). Almost half of the Dutch lapwings breed in maize fields (Schekkerman 2002).</p> <p>Outside the breeding season the species frequents a wide variety of habitats meeting its basic requirements, such as large cultivated fields, wide expanses of grassland, lake or river margins, estuaries etc. In the UK, post-breeding flocks, typically up to 500 birds, are often associated with gravel-pits or other waterbodies (Wernham et al. 2002).</p> | | |

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| | <p>Lapwings seemingly prefer cultivated areas for feeding but shift to grassland during cold spells (Balança 1984, Caupenne 1987), when the species may even resort to tidal mudflats (Cramp & Simmons 1983. In England they choose autumn-sown cereals, preferably those with a height of 7 to 11 cm, but at the end of winter this preference lessens or changes in favour of grassland (Gregory 1987, Mason & MacDonald 1999).</p> |
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Table 1. Geographical distribution of Lapwing during the year (EU 25 only).

| Breeding | Formerly breeding (date of extinction) | Migrating (June – November & February – April) | Non-breeding visitor (October – March) |
|--|--|--|--|
| <ul style="list-style-type: none"> • Austria • Belgium • Czech Republic • Denmark • Estonia • Finland • France • Germany • Greece • Hungary • Ireland • Italy • Latvia • Lithuania • Luxembourg • Netherlands • Poland • Portugal • Slovakia • Slovenia • Spain • Sweden • United Kingdom | | <ul style="list-style-type: none"> • All EU Member States | <ul style="list-style-type: none"> • Portugal |

2. Available key knowledge

Table 2 provides a summary of the most recent, available knowledge on the distribution and trends of the breeding population of Lapwing in each of the European countries. A graph showing the development of the European breeding population 1980-2002, based upon data from the Pan-European Common Bird Monitoring scheme, is included as Fig. 1.

The wintering population of Lapwing is monitored at the annual midwinter counts in January, which are organised by Wetlands International. However, only a relatively small proportion of the population is counted during these counts, because most birds winter inland where coverage is very incomplete (Thorup 2004). The results of the midwinter counts during the period 1989-2002 are summarised in Fig. 2 for the NW European and the West Mediterranean areas. Few Lapwings of European origin winter outside these areas (e.g. Gilissen et al. 2002).

There is a striking discrepancy between the breeding and winter population trends (Table 2, Figs. 1 and 2). Because only a minor part of the wintering population is censused, and the sites covered by the midwinter counts are not typical Lapwing wintering areas, the trend based on the breeding counts is considered the most reliable. The apparent increase on the winter counts may reflect that an increasing proportion of the European Lapwing population winters at coastal sites, due to a deterioration of the inland habitats. However, data from a recent national survey in France by the network ONCFS / FNC "Oiseaux de passage" showed the greatest densities in winter in this country were still inland.

Being a typical dispersed species, and with a major part of the population occurring in agricultural areas, the Lapwing is only to a minor degree linked with Important Bird Areas or Protected Sites. Therefore, tables on the occurrence of the species in IBAs/Protected areas have not been included.

A table summarising information on the national conservation and hunting status of the species is included as Table 4. Apparently, statistics on annual bags of Lapwings do not exist in any of the countries where hunting is currently taking place, so the figures presented in the table are compiled from various sources. The lack of proper bag statistics in the relevant countries is a serious gap in knowledge.

Table 2. *European breeding population of Lapwing.*

| Country | Breeding pairs | Quality | Year(s) of the estimate | Breeding population trend (1990-2000) | Quality | Reference |
|----------------------|-------------------|---------|-------------------------|---------------------------------------|---------|--|
| Albania | 10 – 45 | 2 | 1996-2002 | – 0-19% | 2 | Zekhuist & Tempelman 1998, Bino 2000, BirdLife International 2004a |
| Armenia | 350 – 850 | 2 | 1998-2002 | – | 3 | BirdLife International 2004a |
| Austria | 3,000 – 6,000 | 2 | 1998-2002 | 0 | 3 | BirdLife International 2004a |
| Azerbaijan | 500 – 5,000 | 3 | 1996-2000 | 0 | 3 | BirdLife International 2004a |
| Belarus | 100,000 – 160,000 | 2 | 1997-2000 | – 0-9% | 1 | BirdLife International 2004a |
| Belgium | 17,000 – 24,000 | 2 | 2001-2002 | 0 | 3 | BirdLife International 2004a |
| Bosnia & Herzegovina | 100 – 500 | 3 | 1960-1987 | ? | – | Thorup 2004 |
| Bulgaria | 600 – 1,000 | 2 | 1996-2002 | + 0-19% | 2 | BirdLife International 2004a |
| Croatia | 4,000 – 5,000 | 3 | 2002 | 0 | 3 | BirdLife International 2004a |
| Czech Rep. | 7,000 – 10,000 | 1 | 2000 | – 50-79% | 1 | BirdLife International 2004a |
| Denmark | 30,000 – 45,000 | 2 | 1995-2000 | – 30% | 1 | BirdLife International 2004a |
| Estonia | 15,000 – 30,000 | 3 | 1998 | 0 | 2 | Eltis et al. 2003, BirdLife International 2004a |
| Finland | 50,000 – 80,000 | 2 | 1998-2002 | 0 | 2 | BirdLife International 2004a |
| France | 17,000 – 20,000 | 2 | 1998-2002 | – 18% | 3 | Jiguet et al. 2003, BirdLife International 2004a |
| Georgia | Present | 3 | 2003 | ? | – | BirdLife International 2004a |
| Germany | 67,000 – 104,000 | 2 | 1995-1999 | – 50-79% | 2 | BirdLife International 2004a |
| Greece | 50 – 100 | 3 | 1995-2000 | – 0-19% | 3 | BirdLife International 2004a |
| Hungary | 93,000 – 150,000 | 2 | 1999-2002 | – 0-19% | 2 | Szép & Nagy 2002, BirdLife International 2004a |
| Iceland | 0 – 2 | 1 | 1990-2000 | Fluctuating | 3 | Petursson et al. 1992, BirdLife International 2004a |
| Rep. Ireland | 2,500 – 10,000 | 3 | 1988-1991 | – >80% | 3 | BirdLife International 2004a |

| | | | | | | |
|------------------------|------------------------------|---|-----------|-------------|---|---|
| Italy | 6,000 – 7,000 | 2 | 2003 | + 0-19% | 2 | BirdLife International 2004a Boano ,Della & Toffola (2005) |
| Latvia | 12,000 – 15,000 | 2 | 1990-2000 | 0 | 3 | Strazds et al. 1994, LOB 1998, Aunins <i>sine anno</i> , BirdLife International 2004a |
| Liechtenstein | 0 – 1 | 1 | 1998-2000 | – 30-49% | 1 | BirdLife International 2004a |
| Lithuania | 18,000 – 20,000 | 3 | 1999-2001 | – 30-49% | 3 | BirdLife International 2004a |
| Luxembourg | 20 – 30 | 1 | 1998-2002 | – 80-89% | 1 | BirdLife International 2004a |
| Macedonia | 50 – 150 | 2 | 1990-2000 | Fluctuating | 2 | BirdLife International 2004a |
| Moldova | 350 – 470 | 2 | 1990-2000 | + 20-29% | 2 | BirdLife International 2004a |
| Netherlands | 177,000 – 266,000 | 1 | 2004 | – 8% | 1 | SOVON 2002, Teunissen et al. 2002, BirdLife International 2004a Teunissen & Soldaat 2006, |
| Norway | 40,000 – 80,000 | 3 | 1990-2003 | – 0-19% | 3 | BirdLife International 2004a |
| Poland | 100,000 – 150,000 | 1 | 2000-2002 | – 0-19% | 2 | BirdLife International 2004a |
| Portugal | 0 – 25 | 2 | 2002 | New breeder | 1 | BirdLife International 2004a |
| Romania | 40,000 – 60,000 | 3 | 1990-2002 | – 0-19% | 3 | PMSC 2003, BirdLife International 2004a |
| Russia | 600,000 – 1,100,000 | 2 | 1990-2000 | – 20-29% | 2 | Tomkovich & Lebedeva 1998, 1999, Sviridova 2000, BirdLife International 2004a |
| Serbia & Montenegro | 2,000 – 2,500 | 2 | 1995-2002 | – 0-19% | 2 | BirdLife International 2004a |
| Slovakia | 2,500 – 5,000 | 2 | 1980-1999 | – 30-49% | 2 | BirdLife International 2004a |
| Slovenia | 2,000 – 3,000 | 2 | 1994 | 0 | 3 | BirdLife International 2004a |
| Spain | 1,000 – 2,500 | 3 | 1998-2002 | Fluctuating | 3 | Marti & Del Moral 2003, Madroño et al. 2004, BirdLife International 2004a |
| Sweden | 50,000 – 100,000 | 2 | 1999-2000 | 0 | 1 | BirdLife International 2004a |
| Switzerland | 250 – 400 | 2 | 1998-2002 | – 30-49% | 2 | BirdLife International 2004a |
| Turkey | 10,000 – 20,000 | 2 | 2001 | – 0-19% | 2 | BirdLife International 2004a |
| Ukraine | 65,000 – 124,000 | 2 | 1990-2000 | – 0-19% | 2 | BirdLife International 2004a |
| UK | 137,000 – 174,000 | 1 | 2000 | – 15% | 1 | Crick et al. 2004, BirdLife International 2004a |
| Total (approx.) | 1,700,000 – 2,800,000 | | | | | BirdLife International 2004a |

Data quality: 1: reliable quantitative data, 2: incomplete quantitative data, 3: no quantitative data

Fig. 1. Population trend 1980-2002 of the Lapwing in Europe. Based upon monitoring data from 18 countries: Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, UK, Estonia, Latvia, Poland, Czech Republic, Hungary, Norway and Switzerland. The apparently large fluctuations 1980-87 are probably partly accidental, due to a greater variance of data. (Reproduced from Vorisek 2004.)

Indices (± 1.96 SE), 1980 – 2002, Europe. The index for the base year (1990) is 100 %.

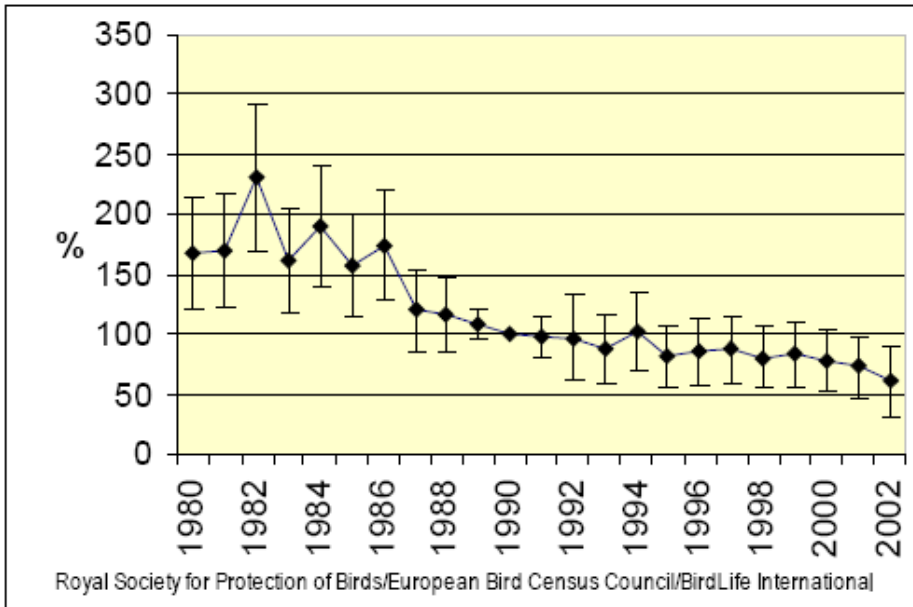


Fig. 2. The development in the number of Lapwing recorded at midwinter (January) counts during 1989-2002 in NW Europe (UK, Ireland, NW Germany, Netherlands, Belgium and France (excluding the Mediterranean part)) and in the West Mediterranean (Italy, France (Mediterranean part), Spain, Portugal, Morocco, Algeria and Tunisia). Notice differences in scale between the two graphs. Based upon results from the International Waterbirds Census (Wetlands International; <http://www.wetlands.org>).

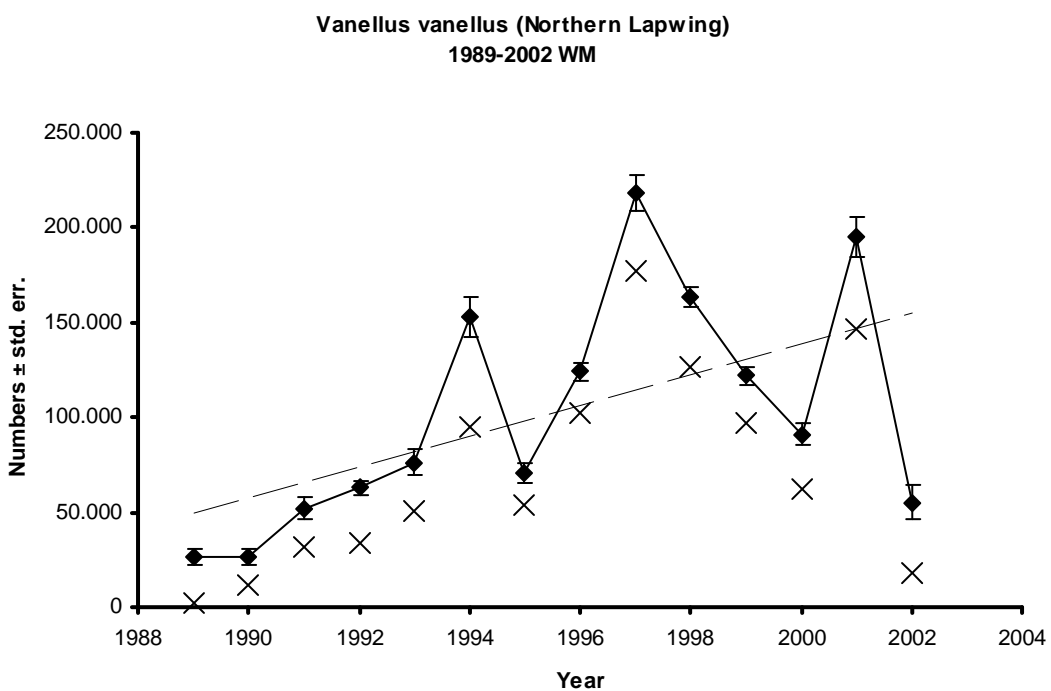
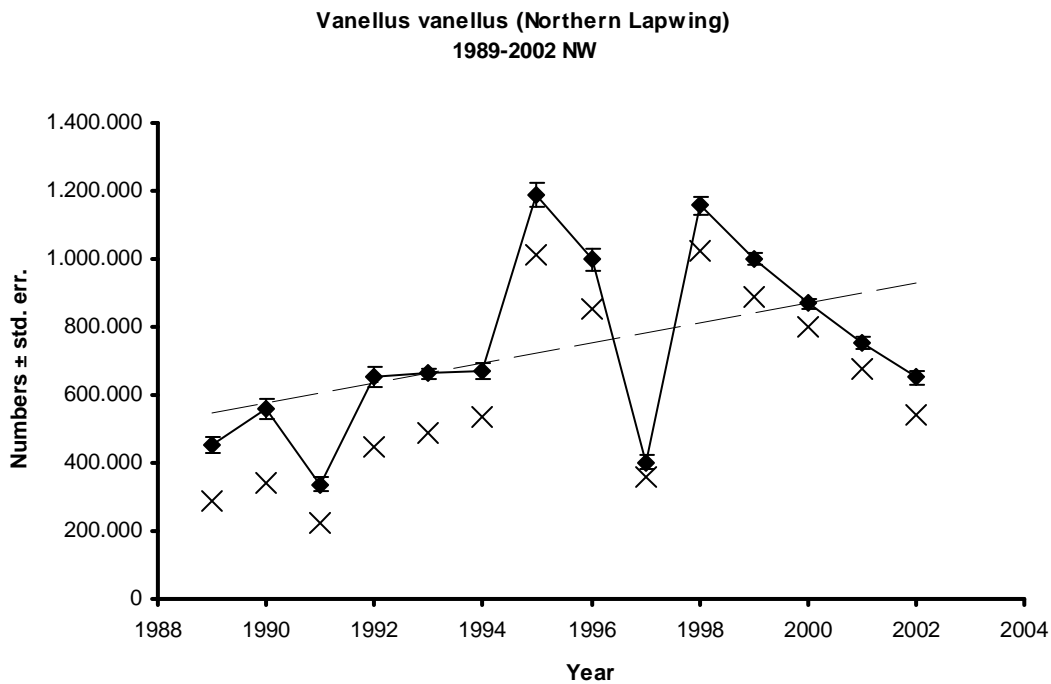


Table 3. *European wintering population of Lapwing. Only countries with supposed presence of the species in winter are included.*

| Country | No. of wintering birds | Year(s) of the estimate | Wintering population trend | Reference |
|----------------------|-------------------------------|--------------------------------|-----------------------------------|----------------------------------|
| Belgium | 50.000 – 80.000 | 1999 - 2005 | Stable | Devos, K. Unpubl. data |
| Bosnia & Herzegovina | 700 – 2.000 | 1990-2000 | Stable | Birdlife International database |
| Bulgaria | 27 – 1.253 | 1997 - 2001 | Fluctuating | Birdlife International database |
| Croatia | 500 – 1.000 | 2002 | Unknown | Birdlife International database |
| Cyprus | 500 – 5.000 | 1994 - 2002 | Stable | Birdlife International database |
| Czech republic | 0 - 50 | 1990 - 2000 | Stable | Birdlife International database |
| Denmark | 1.000 – 2.000 | 1999 - 2000 | Stable | Birdlife International database |
| Estonia | 0 - 5 | 1998 | Unknown | Birdlife International database |
| France | 500.000 – 2.000.000 | 1998 - 2002 | Unknown | Birdlife International database |
| Germany | 2.500 – 10.000 | 1995 - 2000 | Fluctuating | Birdlife International database |
| Greece | 4.000 – 16.000 | 1995 - 1999 | Fluctuating | Birdlife International database |
| Republic of Ireland | 165.000 – 231.000 | 1994 - 2000 | Decreasing | Birdlife International database |
| Italy | 30.000 – 80.000 | 2002 | Increasing | Birdlife International database |
| Latvia | 1 - 2 | 1990 - 2000 | Unknown | Birdlife International database |
| Lithuania | 0 - 50 | 1992 - 2002 | Fluctuating | Birdlife International database |
| Luxemburg | 500 – 1.500 | 2002 | Stable | Birdlife International database |
| Malta | 10 – 25 | 1995 - 2002 | Decreasing | Birdlife International database |
| Netherlands | 95.000 – 130.000 | 1999 - 2001 | Stable | Birdlife International database |
| Poland | 250 – 1.000 | 1990 - 2000 | Increasing | Birdlife International database |
| Portugal | 200,000 – 550,000 | 2000-2002 | Fluctuating | Leitão & Peris 2003, Leitão 2006 |
| Romania | 0 - 200 | 1990 - 2000 | Fluctuating | Birdlife International database |
| Serbia & Montenegro | 800 – 2.000 | 1990 - 2002 | Fluctuating | Birdlife International database |
| Slovakia | 0 – 1.000 | 1990 - 1999 | Unknown | Birdlife International database |
| Slovenia | 30 - 200 | 1995 - 2000 | Fluctuating | Birdlife International database |
| Spain | 100.000 – 250.000 | 1990 - 2001 | Unknown | Birdlife International database |
| United Kingdom | 1.600.000 – 2.100.000 | 1981 - 1992 | Increasing | Birdlife International database |

Table 4. National conservation and hunting status of the Lapwing in EU countries.

| Country | Status in national Red Lists | Legal protection/hunting status | Year of protection status | Open season | Annual bag size | Highest responsible national authority |
|-----------------------|------------------------------|--|---------------------------|---|---------------------------------|--|
| <i>Austria</i> | Near threatened | Protected | | – | – | Provincial Governments |
| <i>Belgium</i> | | Huntable | | None | – | |
| <i>Cyprus</i> | | | | – | – | Ministry of Interior |
| <i>Czech Republic</i> | | | | – | – | Ministry of Environment |
| <i>Denmark</i> | Least Concern | Huntable | | None | – | Ministry of Environment |
| <i>Estonia</i> | | | | – | – | |
| <i>Finland</i> | | | | – | – | Ministry of Environment |
| <i>France</i> | | Huntable | | 26 or 28 August to 31 January ¹⁾ | 436,000 ³⁾ | Ministry of Environment |
| <i>Germany</i> | | | | – | – | |
| <i>Greece</i> | | Huntable | | 15/9 – 31/1 ⁶⁾ | c. 100,000 ⁴⁾ | |
| <i>Hungary</i> | | | | – | – | |
| <i>Ireland</i> | | Huntable | | None | – | |
| <i>Italy</i> | | Huntable | | Oct. – 31/1 | 200,000 – 250,000 ⁴⁾ | |
| <i>Latvia</i> | | | | – | – | |
| <i>Lithuania</i> | | | | – | – | Ministry of Environment |
| <i>Luxembourg</i> | | | | – | – | |
| <i>Malta</i> | | Huntable | | ? | ? | |
| <i>Netherlands</i> | | Egg-collection permitted in Province Fryslân | | 1/3 – 1/4 | Maximum of 6,700 eggs | Ministry of Agriculture, nature management and |

| | | | | | | |
|-----------------------|---------------|------------------------|------|---------------------------|---------------------------------------|-------------------------|
| | | | | | | food quality |
| <i>Poland</i> | | | | – | – | |
| <i>Portugal</i> | Least Concern | Not huntable | 1990 | – | – | Ministry of Environment |
| <i>Slovakia</i> | | | | – | – | |
| <i>Slovenia</i> | Vulnerable | Protected | | – | – | Ministry of Environment |
| <i>Spain</i> | | Huntable ²⁾ | | 2/10 – 31/1 ²⁾ | ? | |
| <i>Sweden</i> | | | | – | – | |
| <i>United Kingdom</i> | | | | – | – | DEFRA |
| Total | | | | | 736,000 – 786,000⁵⁾ | |

¹⁾ Regionally end August – 10/2

²⁾ Depending on province

³⁾ Trolliet & Girard 2000

⁴⁾ Tucker 1996 – this figure refer to the situation in 1989-1995 and since the number of hunters is now lower and the hunting practice has change the bag size is believed to be significantly lower today FACE/Michele Sorrenti (Associazione Cacciatori Migratori Acquatici, Italy).

⁵⁾ Trolliet (2000) estimates that the annual bag in W Europe is c. 1,000,000 birds

⁶⁾ In July-August the Greece Ministry of Rural development and Food issues an annual ministerial decision about the next years hunting season. The period mention applies to 2005-2006 with a bag limit of 10 individuals per hunter per day.

3. Threats

This chapter gives an overview of the threats believed to have a negative impact on Lapwing populations in the EU25 countries. The species now has an Unfavourable Conservation Status across its European breeding range, and the major cause is thought to be agricultural intensification, affecting both arable and grassland areas.

The human activities and other threats impacting the Lapwing have been rather thoroughly studied in western Europe, especially in the UK. A similar amount of knowledge does not exist for the East European countries. Therefore, this chapter mainly focuses on the threats known to exist in western Europe. However, with enlargement of the EU and the adoption of EU agricultural policy in the New Member States, intensification of agriculture is gaining speed over large parts of eastern Europe. As a consequence, the threats impacting on the East European Lapwing populations will be the same as those known from western Europe.

For each of the threats listed, the importance is assessed according to a ranking system as follows:

Critical: a factor causing or likely to cause **very rapid declines** (>30% over 10 years);

High: a factor causing or likely to cause **rapid declines** (20-30% over 10 years);

Medium: a factor causing or likely to cause relatively **slow, but significant, declines** (10-20% over 10 years);

Low: a factor causing or likely to cause **fluctuations**;

Local: a factor causing or likely to cause negligible declines;

Unknown: a factor that is likely to affect the species but it is unknown to what extent.

Numbers in brackets below refer to the IUCN hierarchical classification of causes of species decline (IUCN SSC SiS Threats Authority file).

1. Agriculture (1.1)

Agricultural intensification

The major demographic cause of the Unfavourable Conservation Status of the species is a low annual production of fledglings (Trolliet 2000, Newton 2004). This is mainly due to poor chick survival, an increased clutch failure rate and reduced possibilities of re-nesting. All of these factors are wholly or partly linked with the intensification of agriculture, which has affected both arable land and grassland. Several elements of agricultural intensification have a negative impact on Lapwing breeding success, and some of them also reduce the suitability of the areas outside the breeding season:

- Specialization and the concomitant loss of mixed farm holdings (with both arable and pastoral production) have reduced the number of areas with a mosaic of spring-sown fields and permanent grassland. Lapwings prefer to nest on spring tillage (e.g. Galbraith 1988, Berg et al. 2002), but soon after hatching the chicks move to permanent grassland, if available. Immediate access to pasture significantly increases chick survival (Galbraith 1988, Blomqvist & Johansson 1995).
- Spring-sown crops have been replaced by autumn-sown crops in many regions. Autumn-sown crops are almost useless as a breeding habitat for Lapwing (Shrubb & Lack 1991, Wilson et al. 2001).

Spring cereals are a favoured breeding habitat, but high densities are also found in beets and other broad-leaved spring crops (Petersen 1996). Unlike cereals, root crops remain open and suitable for Lapwings for a long period, allowing successful re-nesting after clutch or brood failure. The area with root crops has declined, first of all because beet as a fodder crop has been replaced by maize.

- Drainage generally reduces the suitability of an area for Lapwings (e.g. Taylor & Grant 2004). A high water table retards crop growth in spring, thus keeping the vegetation height suitable for Lapwings for a longer period, and damp areas inside or adjacent to a field provide foraging sites for the chicks (Berg et al. 1992). Drainage of grasslands is often accompanied by increased fertilizer application and re-seeding (e.g. Newton 2004).
- Increased amounts of fertilizer used on arable fields and grassland generally reduce their value for Lapwings. The higher nutrient levels accelerate vegetation development, lead to more homogenous swards and make the areas unsuitable for Lapwing nesting and foraging earlier in the season. Increased fertilizer levels may also affect Lapwing chicks negatively by changing the composition of their invertebrate prey (Beintema et al. 1997) or impeding chick mobility (Devereux et al. 2004). Fertilization of grasslands allows earlier and more frequent mowing, increasing the risk of egg or chick loss.
- Increased use of pesticides causes a reduction in the amount of available Lapwing food (Hudson et al. 1994). The negative impact of insecticides, especially the non-selective types, is trivial, but also carbamate fungicides and some molluscicides and seed-dressings have a negative effect on, e.g., earthworm biomass (P. Granval pers. comm. to Trolliet 2000). Herbicide use is known to reduce survival of Partridge chicks by removing host plants of phytophagous insects and changing the microclimate (Potts 1986); it is very probable that Lapwing chicks could be affected by a similar mechanism. Certain anti-helminthic agents, especially ivermectins, affect dung-dwelling invertebrates and may thus reduce this food resource (Vickery et al. 2001).
- Deep ploughing, simplified crop rotations and a reduction in the amount of manure reduce earthworm biomass (Granval et al. 1993, Trolliet 2000). Earthworms may be a particularly important element of Lapwing diet in the pre-laying period (Högstedt 1974, Berg 1993) and may also be very important for the chicks (Beintema et al. 1991, Sheldon et al. 2004).
- Increased stocking densities ensure that the vegetation is kept low, but increase the frequency of nest losses due to trampling (Beintema & Müskens 1987, Shrubb 1990). High stocking densities also disrupt incubation schedules and increase the risk of nest predation (Hart et al. 2002).
- Loss of pastures (for chick rearing) due to increasing trend to keep cattle for beef production indoors.
- The spread of agricultural machinery undoubtedly has increased the number of nests being destroyed during farming operations. Such losses may be high; e.g. in Sweden, 43.5% of 870 clutches were destroyed by agricultural machinery (Berg et al. 1992).

Importance

The different elements of agricultural intensification typically act in concert and it is difficult to separate their effects. As a whole, the importance of agricultural intensification is set at High.

Afforestation and agricultural abandonment

Changed economic conditions render farming unprofitable in some areas, especially in the New Member States and northern Fenno-Scandia. This results in an abandonment of arable fields and biodiversity-rich grassland systems, which may then be afforested or invaded by bushes and other kinds of tall vegetation (European Environment Agency 2004). In some regions this could cause a significant loss of high value Lapwing habitat.

In addition to the direct destruction of habitat, plantations also have an indirect, negative effect on Lapwing breeding densities (Stroud & Reed 1986, Stroud et al. 1990). Breeding Lapwings avoid nearby trees, because they increase their vulnerability to Crows (Flodin et al. 1990, Berg et al. 1992).

Importance

The major trend will undoubtedly be towards agricultural intensification, and the extent of afforestation is difficult to foresee. The importance of agricultural abandonment as a threat may locally be High, but for the European population as a whole it is set at Unknown.

2. Infrastructure development (1.4)

Obviously, enlargement of human settlements and road constructions may cause a direct loss of Lapwing habitat.

Breeding Lapwings avoid the proximity of roads. Van der Zande et al. (1980) and Reijnen et al. (1996) found that the density of Lapwing nests could be lower than expected up to 2000 m from a road and concluded that not only the distribution, but also the number of breeding pairs was affected. Conversely, Blühdorn (1998) only noticed a negative effect up to 40 m from the road. Among the Danish Lapwings, where the cause of death was known, 1.4% were killed by collision with cars (Bak & Ettrup 1982).

Power lines may also pose a threat to Lapwings. In the study of Bak & Ettrup (1982), 1.7% of the ringed Lapwings recovered (with known cause of death) were killed by collision with power lines. Furthermore, wind farms have been shown to reduce habitat available for staging and wintering lapwings in several case studies (Hötker et al. 2004).

Importance

The importance of infrastructure development as a threat is set at Local.

3. Harvesting (3)

Within the EU25, harvesting of Lapwing may be permitted in eight countries, i.e. Belgium, Denmark, France, Greece, Ireland, Italy, Malta and Spain. However, in three of these (Belgium, Denmark and Ireland) there is at the moment no open season for Lapwing. The sum of the known annual bags is c. 750,000 (Table 4), and Trollet (2000) estimates that around 1,000,000 Lapwings are shot in Western Europe per year. This figure refers to the situation in the late 1990s. The hunting season in France has subsequently been shortened to bring it in accordance with the Birds Directive. However, this is not believed to have changed the overall bag size in the EU significantly because less than half of the Turtle Doves shot in the EU are killed in France. To produce an estimate of the total hunting mortality affecting European Lapwings, an unknown number of Lapwings harvested in Russia and other East European countries, and probably also a small number of birds shot in northern Africa, must be added to this figure.

Most of the hunting occurs in France, Italy, Greece, and probably Spain. However, because of the Lapwing's extensive migration movements and lack of philopatry hunting in these countries is likely to involve birds originating from most of the species' European range (Trollet 2000). Just over half the recoveries of British ringed birds were taken by man. Hunting accounted for more than 85% of recoveries in France, Ireland, Portugal and Spain, although there has been a decline in the proportion of ring recoveries attributable to hunting (Wernham et al. 2002). When cold weather drives Lapwings south from Britain and other more northerly wintering areas the impact on these populations could be more severe, especially as the species is in any case prone to cold weather mortality (Wernham et al. 2002).

The European breeding population totals 1.7 - 2.8 million pairs (Table 2) or 3.4 - 5.6 million birds. Assuming a mean production of 0.8 fledglings per pair and a post-fledging mortality of 8.4% (cf. the section on Survival and Productivity) would result in an annual production of 1.25 - 2.05 million juveniles. Adding these to the breeding adults, we arrive at an autumn population of 4.6 - 7.6 million birds. If mean production is only 0.5 annual production would be 0.7 - 1.3 million juveniles leading to an autumn population of 4.1 - 6.9 million birds. Using some slightly different assumptions (e.g. an annual production of one juvenile per breeding pair), Thorup (2004) estimates the autumn/winter population to be in the order of 5.5 million birds.

According to the figures available, the annual hunting mortality thus amounts to 13-24% of the European autumn population or, put in another way, the annual harvest equals 50-100% of the annual production of juveniles. Mean mortality rates are 0.38 - 0.44 for 1st year birds and 0.33 - 0.34 for older birds (cf. section on Survival and Productivity), indicating that, on average, about half of the adult and juvenile mortality is due to hunting.

The annual survival rate does not seem to have changed during the years of Lapwing population decline (Trollet 2000, Newton 2004), so it is unlikely that hunting has been a major factor causing the decline. However, even taking into account that some of the Lapwings shot would have died from other causes, harvesting at the current level almost certainly hampers the recovery of the species in Europe.

In general, the beginning of the hunting seasons does not overlap with the breeding season. Because of the irregular cold weather movements, the onset of spring migration is difficult to determine, but hunting until the end of February, as permitted in Greece, certainly overlaps with spring migration and is in contradiction to the Birds Directive.

Importance

The importance of harvesting as a threat is set at Medium.

4. Pollution (6)

Deposition of nutrients, particularly nitrogen compounds, can lead to unfavourable changes in vegetation structure and generally increase vegetation growth, to the detriment of Lapwings.

Heavy metals, e.g. lead, may concentrate in earthworms and thus be taken up by Lapwings, but the effects on survival and productivity (if any) are unknown.

The agricultural pesticides currently approved within the EU do not pose any noticeable risk of direct poisoning to the Lapwing, provided that the products are used in accordance with regulations. Indirect effects of pesticide use, i.e. effects of food depletion, may constitute an important threat (e.g. Campbell et al. 1997), but such effects should be viewed as part of the intensification of agriculture and are considered under that heading.

Importance

The importance of pollution as a threat is set at Unknown.

5. Predators (8.2)

Generally, predation is the most important cause of nest losses in Lapwings (Teunissen et al. 2005), although destruction by agricultural machinery and livestock may be more important in some habitats. The most important nest predators are corvids, foxes and mustelids and, more locally, gulls, harriers, rats, hedgehog and badger (Trolliet 2000, Evans 2004). The chicks, which are flightless for at least five weeks, undoubtedly also suffer heavily from predation. This is a natural situation to which the Lapwing population has adapted through centuries. However, anthropogenic changes in predator numbers and habitat condition may combine to make this species more vulnerable to the effects of predators than formerly.

If the number of predators increase, prey populations may decline as a result. Several species of corvids and raptors (e.g. buzzards in the Netherlands) have increased across Europe within the last decades mammalian ground predators such as foxes and mustelids prey on lapwing nests and have increased, at least in some areas. Fox populations have increased due to a reduced incidence of rabies in several European countries (e.g. Bellebaum 2003). Increases may also be partly due to a reduced hunting pressure (termed “decreased keeping” by some authors, e.g. Tapper 1990). The recent spread of American Mink has also the potential to reduce productivity of Lapwings in wetland areas.

Increased nest and chick predation is regarded as an important cause of the observed decline in productivity (Langgemach & Bellebaum 2005, Teunissen et al. 2005) and has also contributed to population declines on a local scale in some wader species, e.g. Golden Plover (Parr 1992) and Curlew (Grant et al. 1999). There is mounting evidence, though, that predation can be important in influencing

productivity on at least a local scale (Teunissen et al. 2005) but it is unknown to what extent Lapwing populations are affected, especially on a pan-European scale.

Predation locally has become a problem for Lapwing populations because the populations are already at a very low level. Moreover, the quick growth of vegetation, the early harvest and the quick drying up of wet grasslands reduces the time available for replacement clutches (Nehls 1996). Multiple replacement clutches would be the natural reaction to high predation.

Predation on fledged birds is mainly by raptors such as *Accipiter* hawks and falcons and is probably insignificant (Trolliet 2000).

Importance

The importance of predators as a threat varies between countries and regions and is set at Medium.

6. Human disturbance (10)

Human disturbance of Lapwings on the breeding grounds mainly occurs through farming activities, which are considered under the heading of Agriculture (1). Leisure activities may locally be of importance; for example, Klimov (1998) found that human disturbance from leisure activities (together with intensified grazing and increased predation) were among the causes of a decline in the number of breeding Lapwings in his study area in Russia.

According to Trolliet (2000) the effect of human disturbance outside the breeding season has not been studied.

Importance

The importance of human disturbance as a threat is set at Local.

12. Climate change

Climatic change in recent years has resulted in dry winters in parts of southwest EU. In Portugal these changes are believed to be potentially responsible for a long-term decrease in the capacity to support wintering Lapwings because of food scarcity and higher composition. In dry years the flocks of wintering Lapwing in Portugal are generally smaller, the feeding activity higher and night feeding is more common (M. Nunes & D. Leitão in litt.).

Importance

The importance of climate change as a threat is set as unknown.

4. Policies and legislation relevant for management

The Lapwing mainly occurs in agricultural areas. Therefore, management of Lapwing habitat is intimately linked with national and international agricultural policy and legislation, the most important of which is the Common Agricultural Policy of the EU. A detailed account of the relevant agricultural legislation is beyond the scope of this Management Plan. See http://europa.eu.int/comm/agriculture/consleg/index_en.htm for an overview of the Community legislation on the Common Agricultural Policy.

Table 5. *International conservation and legal status of the Lapwing.*

| World Status ¹⁾ (Criteria) | European Status ²⁾ | SPEC category ³⁾ | EU Birds Directive Annex | Bern Convention Annex | Bonn Convention Annex | African-Eurasian Migratory Waterbird Agreement | Convention of International Trade on Endangered Species |
|---|--------------------------------------|------------------------------------|---------------------------------|------------------------------|------------------------------|---|--|
| Not listed | Vulnerable | 2 | II/2 | Appendix III | Appendix II | B 2c | Not listed |

¹⁾ BirdLife International/IUCN Red List assessment.

²⁾ BirdLife International 2004a.

³⁾ BirdLife International 2004a. – SPEC 2: Species whose world populations are concentrated in Europe and which have an unfavourable conservation status in Europe.

Member States / Contracting parties obligations

Lapwing is listed on Annex II/2 of the EU Birds Directive, which implies that the species may be hunted only in those Member States, which have specifically indicated that hunting of the species can be allowed, i.e. Belgium, Denmark, Greece, Spain, France, Ireland, Italy and Malta.

Lapwing is listed on Appendix III of the Bern Convention, which implies that any exploitation of the species shall be regulated in order to keep the populations out of danger. Measures shall include (1) closed seasons and/or other procedures regulating the exploitation, (2) the temporary or local prohibition of exploitation in order to restore satisfactory population levels and (3) the regulation as appropriate of sale, keeping for sale, transport for sale or offering for sale of live and dead birds.

Lapwing is listed on Appendix II of the Bonn Convention, which implies that Range States shall endeavour to conclude Agreements where these would benefit the species, giving priority to species in an Unfavourable Conservation Status.

Lapwing is listed under Column B 2c of the African-Eurasian Migratory Waterbird Agreement, which is used for populations numbering more than 100,000 individuals that are considered to be in need of special attention as a result of significant long-term decline.

National policies, legislation and ongoing activities

The national conservation and legal status of the Lapwing is shown in Table 4. Table 6 presents important national management and restoration projects, which benefit the Lapwing at specific sites, and also includes a brief overview of important national support schemes (e.g. agri-environment schemes) benefiting the Lapwing in the wider countryside.

Table 6. Brief overview of current support schemes, management measures and restoration projects, which benefit Lapwing in Member States.

| MEMBER STATE | SCHEME / PROJECT | YEAR(S) | MONITORING OF RESULTS ? |
|----------------|---|------------|-------------------------|
| Austria | Re-establishment of extensive grazing in National Park Neusiedler See | Continuous | Yes |
| | Wet-meadow management along Leitha river in Burgenland | Continuous | Not systematically |
| | Conservation & Management of alluvial grassland along river March in Lower Austria | Continuous | In parts |
| | Management of wet meadows in several parts of upper Austria | Continuous | yes |
| | Conservation & Management of wet meadows in parts of Rhine valley in Vorarlberg | Continuous | yes |
| Belgium | Local benefits from habitat restoration in favour of meadow birds in general, meadow bird natural reserves | | |
| Netherlands | Agro-environmental schemes (incl. Nest protection, wader scratches, fallow land, late grass cutting) | From 1993 | yes |
| Portugal | None | | |
| United Kingdom | Agri-environmental schemes: - Countryside Stewardship - Environmental Sensitive Area - Environmental Stewardship Higher Level Scheme RSPB Demonstration Lapwing Recovery projects | 2006 | No No Yes Yes |

5. Framework for Action

Priority statement/evaluation

The global population of Lapwing is concentrated in Europe, where the species is still widespread and fairly common across most of its breeding range. While its natural habitat has been encroached upon by man for centuries, the spread of farming has opened new areas for the species. Until around 1990, the European breeding population was probably almost stable, population declines in many intensively farmed areas being counterbalanced by continued expansion elsewhere. Since 1990, however, significant declines have been reported from most of the species' range, and the European Lapwing population underwent a large decline (> 30%) overall (BirdLife International 2004a, Vorisek 2005). Hence, the species is now evaluated as Vulnerable.

The available demographic data indicate that the population decline is mainly caused by an insufficient production of fledglings, due to an increased clutch failure rate, reduced possibilities of re-nesting and poor chick survival. There can be little doubt that the main reason for this is agricultural intensification, which has affected – and is still affecting – almost all of the species' range.

Classical, site-based conservation measures are of little value in a dispersed species like the Lapwing. Instead, conservation efforts must address the general deterioration of the agricultural landscape (and the associated semi-natural habitats) as a breeding, staging and wintering habitat for Lapwing. Recent changes to the EU Common Agricultural Policy offer improved opportunities for this, e.g. through increased support for agri-environment schemes. It is, however, extremely important that such incentives are available across the wider countryside and are not restricted to areas within the Natura 2000 network.

Given the alarming situation of the species in some regions, reserves especially managed for Lapwings and other meadow birds will continue to play an important role in the conservation of the species.

Hunting of Lapwing currently takes place in five EU countries (France, Spain, Italy, Malta and Greece). Proper bag statistics apparently do not exist, but the available data suggest an annual European harvest in the order of one million Lapwing, or 13-24% of the autumn population. Although hunting is not the prime reason for the population declines, a harvesting of this magnitude is almost certainly incompatible with a restoration of the species to Favourable Conservation Status. Consequently, a temporary hunting ban is suggested.

Predation on eggs and chicks is high, and increased predation rates may further have contributed to the population decline. Consequently, habitat management that improve the conditions for predators in Lapwing breeding areas should be avoided and methods for the restoration of habitats that will not support high densities of ground predators should be developed.

Purpose of the Management Plan

Recognizing that the Lapwing has an Unfavourable Conservation Status in Europe due to a large, ongoing decline (BirdLife International 2004a), the Goal (long-term objective) of this plan is:

To restore the Lapwing to a Favourable Conservation Status in Europe¹.

The hunting ban, which should initially apply for a five year period, will be a first, important step towards this goal. The resulting increased survival is expected to slow down, the population decline. However, the fate of the Lapwing in the EU is inseparably linked with the CAP, and a reversal of the population trend is unlikely to occur before Lapwing-friendly management options have been implemented on a large scale for some years in a majority of EU Member States holding important Lapwing populations. Recognizing this, the Purposes (short-term objectives) of the Management Plan are:

- i. To put into force regulations, incentives and other initiatives that will contribute to restoring the Lapwing to a Favourable Conservation Status in Europe
- ii. To collect more robust data on key population parameters such as population size, trends, productivity and survival.

Results for the period 2007-2009

This section outlines the results to be achieved during the first 3-year period of Lapwing management within the EU. The results outlined below (and the corresponding activities in Part 6) are targeted at the authorities responsible for the implementation of the provisions of the Birds Directive in the Member States *and* at the authorities responsible for the implementation of the agri-environment schemes under the Common Agricultural Policy. The results aim initially to address the most urgent issues in order to safeguard the Lapwing population in the EU, but at the same time restrict the corresponding activities to be carried out during the 3 year period to a fairly realistic level.

The numbering of the results represents a logical sequence and does not indicate priority, which is given in Tables 7 and 8. In the Logical Framework Analyses (LFA) table (Table 9), the results with corresponding activities, verifiable indicators, means of verification and assumptions are summarized. It is the responsibility of the relevant authorities of each Member State to decide how to implement the management prescriptions of this plan.

¹ The EU Habitats Directive (92/43/EEC) states that a species' conservation status will be taken as Favourable when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its population on a long-term basis.

It is anticipated that this first Management Plan will be followed by versions with revised objectives that take into account the results achieved during the first phase, other new information etc.

Policy and legislative actions

Harvesting

Article 7 (4) of the Birds Directive requires that hunting complies with the principles of wise use and ecologically balanced control of the species of birds concerned. Likewise, Article 7 of the Bern Convention obliges Contracting Parties to take appropriate measures to ensure that any exploitation of the species concerned is regulated in order to keep the populations out of danger, including the temporary or local prohibition of exploitation in order to restore satisfactory population levels.

Since 1990, a large decline in the European population of Lapwing has occurred, and the species is now considered Vulnerable. Although good data on the number of Lapwings harvested in the EU are lacking, the available estimates of the bag size suggest that the annual harvest amounts to 13-24% of the autumn population. Considering the Unfavourable Conservation Status, the ongoing population decline and the low breeding success of the species, harvesting at any level cannot at present be considered wise use or sustainable. For that reason, hunting of Lapwing should be temporarily closed in all Member States – initially for a five year period.

A result of the implementation of this Management Plan should therefore be that by 2009:

- (1) A temporary (minimum five years) hunting ban in all Member States is significantly assisting the recovery of the European breeding population of Lapwing.

Agriculture

As described in Part 3, agricultural intensification – and to a minor degree agricultural abandonment – reduce the suitability of farmland as a habitat for Lapwing in different ways. Due to the dispersed nature of the species, these threats can only be effectively addressed through the Common Agricultural Policy (Pillar II, agri-environment schemes). It is vital for the recovery of the Lapwing population that support for sympathetic management through these schemes is generally available to farmers and is not restricted to Natura 2000 sites.

The major threats from agricultural intensification that this Management Plan must address are:

- Loss of areas with a mosaic of spring-sown crops and permanent grassland
- Loss of areas with spring cereals and root crops
- Loss of damp areas inside or adjacent to fields
- Abandonment of grazing or, where grazing still occurs, increased stocking densities
- Increased fertilization of grasslands
- Increased use of pesticides, incl. anti-helminthic treatments

- Timing of agricultural operations that is incompatible with successful breeding like intensive grass cutting

Conversion to organic farming (which is often mixed), addresses most of these issues, and organic farmland is known to hold higher densities of Lapwing than conventional farmland (Braae et al. 1988). However, where the Lapwings choose to breed on arable fields, breeding success on organic farms may be extremely poor, due to repeated mechanical weeding (Petersen unpubl.), effectively making these areas act as a population sink. Due to the great potential for Lapwings at organic farms, displacement of farming operations to create a “Lapwing breeding window” should be encouraged.

Results of the implementation of this Management Plan should therefore be that by 2009:

- (2) Incentives exist for retaining and reinstating pastoral pockets in arable areas and are taken up by farmers in all Member States with breeding or wintering Lapwing.
- (3) Incentives exist for sowing crops in spring instead of in autumn and are taken up by farmers in all Member States with breeding Lapwing.
- (4) Incentives exist for retaining and restating damp or wet areas inside or adjacent to fields and are taken up by farmers in all Member States with breeding or wintering Lapwing.
- (5) Incentives exist for extensification of grassland management (e.g. through less effective drainage, low or no input of fertilizer/manure) and are taken up by farmers in all Member States with breeding or wintering Lapwing.
- (6) Incentives exist for maintaining extensive grazing regimes and are taken up by farmers in all Member States with breeding or wintering Lapwing.
- (7) Incentives exist for using low or no input of pesticides and biocides and are taken up by farmers in all Member States with breeding or wintering Lapwing.
- (8) For organic farming, incentives exist for omitting mechanical weeding, rolling and similar operations between 10 and 60 days after sowing of spring cereals or root crops.

This will benefit not only the Lapwing but also several other species breeding in the same areas that have similar habitat requirements or take advantage of the Lapwings’ effective predator defence (Eriksson & Götmark 1982).

Predators

Natural predation on Lapwing eggs and chicks is high, the main predators being raptors, corvids, foxes and mustelids. Increased predation rates may have contributed to the decline or extinction of local populations, but it is unknown to what extent the Lapwing population has been affected on a European scale. Nevertheless, habitat management that improves the conditions for predators in Lapwing breeding areas should be avoided. Hence, existing possibilities for supporting the raising of hedgerows, coverts or plantations on moist or mesic grasslands and meadows should be re-assessed.

A result of the implementation of this Management Plan should therefore be that by 2009:

- (9) In areas with breeding Lapwing, no incentives for raising plantations, hedgerows or coverts on moist and mesic grasslands and meadows exist.

Research and monitoring

Adequate population monitoring and an understanding of factors that contribute to population dynamics are essential to management of wildlife populations. It is impossible to judge at what level hunting of Lapwing in the EU may be sustainable if the size of the breeding population and the population development are not reasonably well known.

Breeding populations of common, dispersed species such as the Lapwing can only be the subject of total counts within very limited areas. Therefore, assessment of population size and trends must rely on random sampling techniques such as point counts. National Common Bird Census programmes exist in many Member States but not in all. Also taking into account that population trends of farmland birds (including Lapwing) are among the indicators selected for monitoring the integration of environmental concerns into the CAP (European Environment Agency 2006), a national monitoring programme should be initiated in those Member States where such a programme is currently lacking. Such programmes should ensure a representative coverage of all regions and habitats, including agricultural land, especially in view of the increasing trend in many countries (eg Slovenia) for Lapwings to breed in arable fields (Tome 1998, Ales 2005).

The low number of fledglings produced per territory and year seems to be the most important single demographic factor hindering a recovery of the European population of Lapwing. Whereas hatching success and causes of egg losses have been the subject of many studies, less is known about fledging success and causes of chick loss. It is important that further studies on this are carried out to improve knowledge on overall fledging success and the relative importance of chick starvation and predation under different management regimes.

A result of the implementation of this Management Plan should therefore be that by 2009:

- (10) A suitable, national programme for monitoring breeding populations of common farmland birds exists in all Member States with breeding Lapwing.
- (11) A study of Lapwing fledging success and causes of chick loss under different management regimes has been carried out in at least two Member States representing different biogeographic regions.
- (12) A suitable, national programme for monitoring wintering populations of Lapwing is developed for Member States with more than 100,000 wintering Lapwing.

6. Activities

Table 7. Actions to be taken in all countries in the EU where harvesting of Lapwing is allowed or may be allowed.

| Result | Priority | National activities | Time scale | Means of verification |
|--|-----------------|---|-------------------|--|
| A temporary hunting ban in all Member States is significantly assisting the recovery of the European breeding population of Lapwing. | High | Ensure that hunting seasons are closed in all Member States for a minimum of five years to assist the recovery of the European population of Lapwing. | Short | <ul style="list-style-type: none"> • Publication/website of relevant national or regional authority with official rules for Lapwing harvesting. • Report to ORNIS Committee by national delegates. |

The **Priority** of each Result is given, according to the following scale:

- **Essential:** an action that is needed to prevent a large decline in the population, which could lead to species or subspecies extinction.
- **High:** an action that is needed to prevent a decline of more than 20% of the population in 20 years or less
- **Medium:** an action that is needed to prevent a decline of less than 20% of the population in 20 years or less
- **Low:** an action that is needed to prevent local population declines or which is likely to have only a small impact on the population across the range.

The **Time scales** attached to each Activity use the following criteria:

- **Immediate:** completed within the next year.
- **Short:** completed within the next 1-3 years
- **Medium:** completed within the next 1 – 5 years.
- **Long:** completed within the next 1 – 10 years
- **Ongoing:** an action that is currently being implemented and should continue.
- **Completed:** an action that was completed during the preparation of the Management Plan.

Table 8. *Actions to be taken in all countries in the EU with breeding or wintering Lapwing (the scale for priority and the time scale are given below the table).*

| Result | Priority | National activities | Time scale | Means of verification |
|--|-----------------|---|-------------------|---|
| Incentives for retaining and reinstating pastoral pockets in arable areas exist and are taken up by farmers. | Essential/High | Ensure that incentives for retaining and restating pastoral pockets in arable areas are available to all farmers | Short | <ul style="list-style-type: none"> • National statistics of agricultural land use 2005-2009. • National reports to EU Commission (DG Agri) on agri-environment schemes. |
| Incentives for sowing crops in spring instead of in autumn exist and are taken up by farmers. | Essential/High | Ensure that incentives for sowing crops in spring instead of in autumn are available to all farmers. (Member States with breeding Lapwing only) | Short | <ul style="list-style-type: none"> • National statistics of agricultural land use 2005-2009. • National reports to EU Commission (DG Agri) on agri-environment schemes. |
| Incentives for retaining and restating damp or wet areas inside or adjacent to fields exist and are taken up by farmers. | Essential/High | Ensure that incentives for retaining and restating damp or wet areas inside or adjacent to fields are available to all farmers. | Short | <ul style="list-style-type: none"> • National reports to EU Commission (DG Agri) on agri-environment schemes. |

| | | | | |
|--|--------|--|-------|--|
| Incentives for extensification of grassland management (e.g. through less effective drainage, low or no input of fertilizer/manure) exist and are taken up by farmers. | High | Ensure that incentives for extensification of grassland management (e.g. through less effective drainage, low or no input of fertilizer/manure) are available to all farmers. | Short | <ul style="list-style-type: none"> National reports to EU Commission (DG Agri) on agri-environment schemes. |
| Incentives for maintaining extensive grazing regimes exist and are taken up by farmers. | High | Ensure that incentives for maintaining extensive grazing regimes are available to all farmers. | Short | <ul style="list-style-type: none"> National reports to EU Commission (DG Agri) on agri-environment schemes. |
| Incentives for using low or no input of pesticides and biocides exist and are taken up by farmers. | Medium | Ensure that incentives for using low or no input of pesticides and biocides are available to all farmers. | Short | <ul style="list-style-type: none"> National statistics of agricultural pesticide and biocide use 2005-2009. National reports to EU Commission (DG Agri) on agri-environment schemes. |
| For organic farming, incentives exist for omitting mechanical weeding, rolling and similar operations between 10 and 60 days after sowing of spring cereals or root crops. | Medium | Ensure that incentives for omitting mechanical weeding, rolling and similar operations between 10 and 60 days after sowing of spring cereals or root crops in organically farmed areas are available to all farmers. | Short | <ul style="list-style-type: none"> National reports to EU Commission (DG Agri) on agri-environment schemes. |

| | | | | |
|--|------------|---|--------|--|
| In areas with breeding Lapwing, no incentives for raising plantations, hedgerows or coverts on moist and mesic grasslands and meadows exist. | Low/Medium | Ensure that no incentives for the raising of plantations, hedgerows or coverts on moist and mesic grasslands and meadows exist in areas with breeding Lapwing. | Short | ▪ ? |
| A suitable, national programme for monitoring breeding populations of common farmland birds, including Lapwing, exists. | Medium | Ensure that a suitable, national programme for monitoring breeding populations of common farmland birds exists. (Member States with breeding Lapwing only) | Short | • Reports and/or websites presenting results of the programme. |
| A study of Lapwing fledging success and causes of chick loss under different management regimes has been carried out in at least two Member States representing different biogeographic regions. | Medium | Initiate and/or support a study of Lapwing fledging success and causes of chick loss under different management regimes. (Member States with breeding Lapwing only) | Medium | • Study reports or scientific papers available. |
| A suitable, national programme for monitoring wintering populations of Lapwing is developed for Member States with more than 100,000 wintering Lapwing. | Medium | Ensure that a suitable programme for monitoring wintering Lapwing is developed | Short | • Monitoring programme available |

The **Priority** of each Result is given, according to the following scale:

- Essential: an action that is needed to prevent a large decline in the population, which could lead to species or subspecies extinction.
- High: an action that is needed to prevent a decline of more than 20% of the population in 20 years or less
- Medium: an action that is needed to prevent a decline of less than 20% of the population in 20 years or less
- Low: an action that is needed to prevent local population declines or which is likely to have only a small impact on the population across the range.

The **Time scales** attached to each Activity use the following criteria:

- Immediate: completed within the next year.

- Short: completed within the next 1-3 years
- Medium: completed within the next 1 – 5 years.
- Long: completed within the next 1 – 10 years
- Ongoing: an action that is currently being implemented and should continue.
- Completed: an action that was completed during the preparation of the Management Plan.

Table 9. Summary of objectives/results and activities of the Lapwing Management Plan 2007-2009.

| DESCRIPTION | VERIFIABLE INDICATORS | MEANS OF VERIFICATION | ASSUMPTIONS |
|--|--|--|--|
| <p>Goal: To restore the Lapwing to a Favourable Conservation Status in Europe.</p> <p>Purposes: To put into force regulations, incentives and other initiatives that will contribute to restoring the Lapwing to a Favourable Conservation Status in Europe.</p> <p>To collect more robust data on key population parameters such as population size, trends and productivity.</p> | <p>The European Lapwing population is restored to a Favourable Conservation Status.</p> <p>Regulations, incentives and other initiatives put into force.</p> <p>Monitoring programmes and studies are initiated and/or supported</p> | <p>The European Threat Status classification of Lapwing.</p> <p>Report to ORNIS Committee by national delegates no later than 2009.</p> <p>Report to ORNIS Committee by national delegates no later than 2009.</p> | <p>Key elements responsible for the negative population development of the Lapwing have been identified and addressed in the Management Plan.</p> <p>Member States have adequate resources and commitment to take responsibility for Lapwing management in accordance with the requirements of the Birds Directive.</p> |
| <p>Results 2006-2009:</p> <p>1. A temporary (minimum five years) hunting ban in the EU is significantly assisting the recovery of the European breeding population of Lapwing.</p> <p>2. Incentives exist for retaining pastoral pockets in arable areas and are taken up by farmers in all Member States with breeding or wintering Lapwing.</p> <p>3. Incentives exist for sowing crops in spring instead of in autumn and are taken up by farmers in all Member States with breeding Lapwing.</p> <p>4. Incentives exist for retaining damp or wet areas inside or adjacent to fields and are taken up by farmers in all</p> | <p>1. National or regional hunting regulations.</p> <p>2. Incentives are taken up, and by 2009 the area of pastoral pockets in arable areas is higher than in 2005 in all Member States with breeding or wintering Lapwing.</p> <p>3. Incentives are taken up, and by 2009 the percentage of spring-sown crops is higher than in 2005 in all Member States with breeding Lapwing.</p> <p>4. Incentives are taken up, and by 2009 the area of damp or wet areas inside or adjacent to fields is higher than in 2005</p> | <p>1. Publication/website of relevant national or regional authority with official rules for Lapwing harvesting and report to ORNIS Committee by national delegates no later than 2009.</p> <p>2. National statistics of agricultural land use 2005-2009 and national reports to EU Commission on agri-environment schemes.</p> <p>3. National statistics of agricultural land use 2005-2009 and national reports to EU Commission on agri-environment schemes.</p> <p>4. National reports to EU Commission on agri-environment schemes.</p> | <p>1. Relevant authorities have adequate commitment to take responsibility for Lapwing management in accordance with the Birds Directive and the Bern Convention.</p> <p>(2-8): Incentives are contained within the Common Agricultural Policy.</p> <p>Member States have the commitment to make the incentives available and attractive to farmers.</p> |

| | | | |
|---|---|---|---|
| <p>Member States with breeding or wintering Lapwing.</p> <p>5. Incentives exist for extensification of grassland management and are taken up by farmers in all Member States with breeding or wintering Lapwing.</p> <p>6. Incentives exist for maintaining extensive grazing regimes and are taken up by farmers in all Member States with breeding or wintering Lapwing.</p> <p>7. Incentives exist for using low or no input of pesticides and biocides and are taken up by farmers in all Member States with breeding or wintering Lapwing.</p> <p>8. For organic farming, incentives exist for omitting mechanical weeding, rolling and similar operations between 10 and 60 days after sowing of spring cereals or root crops.</p> <p>9. In areas with breeding Lapwing, no incentives for raising plantations, hedgerows or coverts on moist and mesic grasslands and meadows exist.</p> <p>10. A suitable, national programme for monitoring breeding populations of common farmland birds exists in all Member States with breeding Lapwing</p> <p>11. A study of Lapwing fledging success and causes of chick loss under different management regimes has been carried out in at least two Member States representing different biogeographic regions.</p> <p>12. A suitable, national programme for monitoring wintering populations of Lapwing is developed for Member States with more than 100,000 wintering Lapwing.</p> | <p>in all Member States with breeding or wintering Lapwing.</p> <p>5. Incentives are taken up, and by 2009 the percentage of grassland that is managed extensively is higher than in 2005 in all Member States with breeding or wintering Lapwing.</p> <p>6. Incentives are taken up, and by 2009 the percentage of pasture under extensive grazing regimes is higher than in 2005 in all Member States with breeding or wintering Lapwing.</p> <p>7. Incentives are taken up, and by 2009 the amount of pesticides and biocides used in areas covered by the schemes are lower than in 2005 in all Member States with breeding or wintering Lapwing.</p> <p>8. Incentives are taken up, and by 2009 farming operations in spring crops have been displaced to create a “Lapwing breeding window” on a significant number of organic farms in all Member States with breeding Lapwing.</p> <p>9. No plantations, hedgerows or coverts are raised on moist and mesic grasslands with breeding Lapwing.</p> <p>10. No later than 2010, a national programme for monitoring breeding populations of common farmland birds is running in all Member States with breeding Lapwing.</p> <p>11. Studies are initiated and/or supported.</p> <p>12. Programme is available by 2010.</p> | <p>5. National reports to EU Commission on agri-environment schemes.</p> <p>6. National reports to EU Commission on agri-environment schemes.</p> <p>7. National statistics of agricultural pesticide and biocide use 2005-2009 and national reports to EU Commission on agri-environment schemes.</p> <p>8. National reports to EU Commission on agri-environment schemes.</p> <p>9. ?</p> <p>10. No later than 2009, reports and/or websites present results of a monitoring programme.</p> <p>11. By 2009, study reports or scientific papers are available from each study.</p> <p>12. No later than 2009, reports and/or websites present results of a monitoring programme.</p> | <p>Incentives are available across the wider countryside; i.e. they are not restricted to Natura 2000 sites.</p> <p>Adequate resources are available.</p> <p>Farmers have a positive attitude towards the incentives.</p> <p>9. Landowners understand and accept that ensuring wader breeding success is a priority issue.</p> <p>10. Adequate financial resources and manpower are available in Member States.</p> <p>11. Adequate resources and scientific personnel are available.</p> <p>12. Adequate financial resources and manpower are available in Member States</p> |
|---|---|---|---|

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