Skylark  

Alauda arvensis

**SPECIES INFORMATION**

**ECOLOGY**

- The skylark is somewhat larger than a sparrow but smaller than a starling; It has a streaky brown plumage and a small crest on its head which is raised when existed or alarmed;
- It is renowned for its dramatic display flights and its sustained melodious song;
- It is the most widespread lark in Europe and is a characteristic feature of agricultural landscapes;
- Skylarks from northern and eastern Europe are migratory whereas those in the west and south are mainly resident. Migrants winter mainly in SW Europe;
- Birds arrive at their breeding grounds from mid-February to early April, autumn passage occurs September-November;
- Skylarks breed from April to July and nest on the ground. They usually produce 2-3 (occasionally more) clutches of 3-5 eggs per year;
- Incubation time is c. 11 days; the young usually leave the nest at 8-10 days of age, fledge at 18-20 days and become independent after c. 25 days;
- First breeding is at the age of one year but only 20-35 % of the young leaving the nest survive to breeding age;
- Each female must make 2-3 breeding attempts per year in order to maintain a stable population;
- Skylarks feed on the ground, usually on arable fields, set-aside or grassland, autumn and winter often on stubble fields;
- Main food items are insects and other invertebrates in summer, seeds and green plant parts in winter.

HABITAT REQUIREMENTS

- The original habitat of the skylark is the steppe grassland but the vast majority now occur in agricultural land, especially arable fields; Within farmland cereals, legumes, root crops, young leys and set-aside are preferred;
- Other natural or semi-natural habitats inhabited by skylarks are salt marshes, sand-dunes, lowland and alpine meadows (up to at least 2000 m above sea level);
- Skylarks avoid tall or dense crops: the preferred vegetation height is 10-60 cm for nesting and < 25 cm for feeding and the preferred ground cover is 35-60%;
- Skylarks also avoid areas close to woods, hedgerows and other vertical structures;
- The highest population densities and the highest productivity occur where crop diversity provides a mosaic of vegetation heights suitable for nesting throughout the breeding season;
- Densities can be up to three times higher in organically farmed areas than in conventional areas;
- Outside the breeding season, skylarks are found in coastal marshes, pasture, fallow, stubble fields and fields with autumn-sown cereals or oil-seed rape.

THREATS

For centuries skylarks benefited widely from an increase in arable farmland. However, since 1970, skylark populations have suffered large declines (up to 49% drop) over most of northern and western Europe. The threats affecting the species in western Europe are well understood and it is supposed that the same threats are now operating further east, particularly following accession to the EU.

The major threats are linked with agricultural intensification and include:
- Reduced crop diversity due to the loss of mixed holdings, amalgamation of fields and farm holdings, the trend towards monocultures etc. The uniform crop structure shortens the period when optimum breeding conditions are available and thus limits the number of successful breeding attempts;
- Abandonment of arable farming: may lead to significant loss of skylark habitat if the fields are afforested or are invaded by scrub;
- Autumn-sowing instead of spring sowing impacts the skylark in two ways: firstly, autumn-sown crop monocultures are unsuitable breeding habitat as they are denser and taller throughout the season. This means that generally there is only one single successful nesting attempt. Secondly, autumn-sowing results in a loss of winter stubbles which are very important feeding habitats in autumn, winter and early spring;
- Intensification of grassland management: reseeding and increased application of fertilizers lead to a homogeneous, dense, fast-growing sward that quickly becomes unsuitable as a nesting habitat. The switch from hay to silage has the same effect;
- Increased use of pesticides reduces the amounts of weeds and invertebrates serving as food for skylarks;
- Increased amounts of fertilizer accelerate crop development and make the areas unsuitable for skylark nesting and foraging earlier in the season;
- Harvesting techniques: in taller crops, the birds have a tendency to nest near tractor tracks. This not only makes the nests vulnerable to crushing but also increases their exposure to predators. In grasslands the switch from hay to silage has resulted in many nests being destroyed by cutting machinery since the period between cuts is often too short for successful nesting;
- Increased predation: because skylarks nest on the ground, they are heavily predated on by crows, foxes, mustelids etc… These generalist predators have increased in numbers across large parts of Europe in recent decades;
- Exploitation: About 5 million skylarks, or c. 5 percent of the wintering population, are annually harvested within the EU. It is doubtful whether such a level of exploitation is sustainable, given the unfavourable conservation status of the species.
FARMING PRACTICES FAVOURABLE TO SKYLARKS

Skylark populations are declining or depleted in most Member States and intensification of agriculture is thought to be the main cause. Although this intensification is less progressed in Eastern Europe than further west, implementation of skylark friendly farming practices is important across the EU-27, in order to maintain healthy populations in the east and restore depleted populations in the west. The following practices will help:

- **Promote organic farming:** Organic farming tackles several of the issues associated with current conventional practices such as low crop diversity, low sward heterogeneity and high levels of pesticide and inorganic fertilizer use. Although some elements of organic farming, especially mechanical weeding, may affect skylarks negatively, the overall effect of a conversion is positive;

- **Maintain or increase crop diversity:** The presence of different crops, with different structure and phenology, ensures that suitable breeding conditions for skylarks exist over a long period;

- **Maintain or increase spring-sowing of cereals:** Contrary to autumn-sown cereals, spring-sown crops offer a vegetation structure which is suitable for skylarks during most of the summer and thus allow more than one breeding attempt;

- **Leave cereal stubbles over winter:** Stubble fields are very important feeding habitats in autumn, winter and early spring, especially when left untreated (no harrowing, no pesticides) until spring;

- **Promote extensive grassland management:** Slow-growing grasslands with a heterogeneous sward may hold high densities of skylark, but reseeding, increased fertilization, frequent mowing or increased stocking rates severely impair their value as a breeding habitat;

- **Leave areas as set-aside:** in large blocks (e.g. 16-24 m²) away from field boundaries and tractor tracks, this creates suitable foraging areas for the skylark (e.g. ‘beetle banks’). Such areas should not be close to hedgerows or other vertical structures. Management should keep them with an open, low vegetation structure but they should be left untreated (no harrowing, no cutting etc) from March-April to August. In the UK it was found that just two such skylark plots per ha can have significant benefits for skylarks;

- **Leave unsown patches in cereals:** Even small, unsown patches (eg 30 m² each) in cereal fields may increase nest density and breeding success by offering a vegetation structure that is suitable for skylarks and giving the birds easy access to the surrounding crop. This is particularly important in autumn-sown cereals;

- **Reduce pesticide use:** to provide more weeds, weed seeds and insects as food for skylarks;

- **Reduce irrigation to the minimum amount necessary:** to avoid that nests are flooded and nestlings are soaked and die from cold;

- **Control exploitation:** Hunting of skylarks occurs in several countries from August to February: France, Italy, Malta, Greece and Cyprus (and probably also in northern Spain). It is carried out partly for food, partly as a cultural and leisure activity. The level of hunting however needs to be regulated in accordance with the provisions of the Birds Directive to ensure that it does not affect the conservation status of the species.

OTHER SPECIES BENEFITING FROM THESE CONSERVATION MEASURES

Like every species, the skylark has particular habitat requirements that are unique to its ecology and lifecycle. However, several of the measures mentioned above would also benefit other farmland species protected under the Birds Directive e.g.:

- Red Kite, *Milvus milvus*;
- Kestrel, *Falco tinnunculus*;
- Lapwing, *Vanellus vanellus*;
- Ortolan Bunting, *Emberiza hortulana*;
- Corn Bunting, *Miliaria calandra*.
In addition, these management practices would benefit several huntable species, including declining or depleted species such as:

Red-legged Partridge, *Alectoris rufa;*
Grey Partridge, *Perdix perdix;*
Quail, *Coturnix coturnix;*
Brown Hare, *Lepus europaeus.*

**OBLIGATIONS ARISING FROM THE BIRDS DIRECTIVE**

The skylark is protected under the EU Birds Directive 79/409/EEC (but is not listed in Annex I so Natura 2000 sites do not have to be designated for this species). Member States must take the following measures to ensure its conservation.

**General requirements**

Member States are required to take the requisite measures to maintain the population of the corncrake at a level which corresponds in particular to its ecological, scientific and cultural requirements, or to adapt the population of the species to that level (cf Article 2).

To achieve this, Member States are required to preserve, maintain or re-establish a sufficient diversity and area of habitats for the skylark which should include primarily the following (cf Article 3):

- creation of protected areas;
- upkeep and management in accordance with the ecological needs of habitats both inside and outside protected area;
- re-establishment of destroyed habitats;
- creation of habitats.

**Protecting the species**

Member States should take the requisite measures to establish a general system of protection for the skylark throughout its natural range within Europe, and in particular to prohibit the following (cf Art 5):

- deliberate killing or capture by any method;
- deliberate destruction of, or damage to, their nests and eggs or removal of their nests;
- taking their eggs in the wild and keeping these eggs;
- deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as this would have a significant negative effect on the birds;
- keeping the birds, the hunting and capture of which is prohibited

Member States must also make provisions to regulate the sale, transport for sale, keeping for sale and the offering for sale of live or dead birds and of any readily recognizable parts or derivatives of these birds (cf Art 6).

**Control of exploitation (Articles 7 & 8)**

The skylark is listed under Annex II/2 of the Birds Directive, which means that the species may be hunted under national legislation in those Member States (Cyprus, France, Greece, Italy, Malta and Romania) which have specifically indicated that hunting of skylarks can be allowed. These Member States must ensure that the practice of hunting complies with the principle of wise use and that hunting is compatible with the measures taken according to Article 2 (cf above). They shall see in particular that skylarks are not hunted during their period of reproduction or during their return migration towards the breeding grounds in late winter and spring. In the case of skylark the hunting season is restricted to 15 August to 15 February.

In respect of the hunting of the species, Member States shall prohibit the use of all means, arrangements or methods used for the large-scale or non-selective capture or killing of birds or capable of causing the local disappearance of skylarks or other bird species. In particular, the following methods shall be prohibited (Article 8):

- snares, limes, hooks, nets or traps;
- live birds which are blind or mutilated used as decoys;
- tape recorders;
- poisoned or anaesthetic bait;
- artificial light sources, mirrors, devices for illuminating targets etc;
- electrocuting devices or explosives;
- semi-automatic or automatic weapons.

**SKYLARK CONSERVATION THROUGH MEASURES UNDER CAP/RDPs**

Obligations arising under the Birds Directive can be integrated into the CAP measures in the following manner:

**Cross compliance**

Cross compliance is a horizontal CAP tool and applies to all direct payments (Pillar I), Pillar II payments (Less Favoured Area payments, Agri-Environment, Natura 2000 compensatory payments, and certain wine payments). The cross compliance requirements consist of 19 Statutory Management Requirements (SMR), and the requirements set to keep land in good agricultural and environmental conditions (GAEC).

In the case of the Birds Directive one of the 19 SMRs concerns the requirements resulting from the following articles that must be respected by farmers:

→ **Article 3 (1) & (2)(b):** preserve and maintain a sufficient diversity of habitats for wild birds; in particular introduce measures for their upkeep and management in accordance with the ecological needs of habitats inside and outside of protected zones;

→ **Article 4 (1), (2), (4):** special conservation measures in Natura 2000 sites and taking appropriate steps to avoid pollution or deterioration of these areas;

→ **Article 5 (a), (b) & (d):** obligations under the general system or protection for all wild birds, and in particular prohibitions of the deliberate killing or capture by any method, the deliberate destruction of, or damage to, their nests and eggs or removal of their nests and/or the deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant.

The exact requirements of the above mentioned SMRs vary between Member States and depend on the way the requirements of the Birds and Habitats Directives are translated into their laws and administrative measures (e.g. management plans for Natura 2000 sites) applicable to farmers, and consequently cross compliance.

In addition to meeting the SMRs, farmers must also keep land in good agricultural and environmental conditions (GAEC) which sets a minimum level of maintenance through, for instance, compulsory standards for:

- Retention of landscape features including where appropriate, hedges, ponds, ditches, trees (in line, in group or isolated) and field margins;
- Avoidance of encroachment of unwanted vegetation on agricultural land;
- Protection of permanent pasture.

Member States can also voluntarily set standards, for example, for:

- Minimum livestock stocking rates or/and appropriate regimes;
- Establishment and/or retention of habitats.

**Measures under Rural Development Programmes funded from EAFRD:**

The following measures could be used to benefit skylarks:

- **Less Favoured Area payments** (Article 37): linked to existing farming practices where they support upkeep of traditional low-input farming systems;

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1 These standards are however compulsory for those Member States who had already set a minimum requirements for these standards before 1 January 2009 or where national rules addressing the standard are applied in the Member State.
- **Agri-environment payments** (Article 39): in order to compensate for costs incurred and income foregone resulting from farming practices that are important for skylarks. For instance, voluntary measures such as conversion to organic farming, sowing cereals in spring instead of in autumn, leaving untreated stubble over winter, leaving unsown patches in cereal fields, reducing pesticide and fertilizer use, limiting irrigation, not intensifying grassland management...

- **Reimbursement of non-productive investments** (Article 41): can cover a range of investments including on-farm investments linked AE schemes, or which enhance the public amenity value of a Natura 2000 area;

- **Conservation of rural heritage** (Article 57): for instance to cover the cost of drawing up management or species action plans for skylark undertaking habitat restoration measures, launching awareness campaigns on skylark conservation amongst farmers.

In addition the following could also be used:

- **Training and information** (Article 21): e.g. could help make agri-environment schemes more effective and train farmers and experts in the Farm Advisory Services on conservation and management requirements linked to wildlife such as skylarks;

- **Farm Advisory Services (FAS)** (Articles 24 and 25): to advise farmers on how to apply cross compliance rules, e.g. those based on the Habitats and Birds Directives that are beneficial, inter alia, for skylarks;

- **LEADER** (Article 61): integration of skylark conservation into area-based local development strategies and enhancement of dialogue and collaboration between farmers, conservationists and other rural stakeholders in the area concerned.

### EXAMPLES OF SKYLARK FRIENDLY MEASURES UNDER RDP

The following provide a few examples of how different countries have included skylark friendly measures in their Rural Development Programmes. Besides such measures that are directly targeted at skylarks, most Member States have introduced a number of more general measures, first of all related to the promotion of organic farming, integrated production or other low-input farming practices, which in addition to other purposes also benefit skylarks.

Many of the agri-environment measures deal with the management of field borders or strips along field borders. It should be noticed that such measures are generally of limited value to skylarks which often tend to avoid the field edge, especially if this is lined by hedges or trees.

#### FLANDERS (BELGIUM)

The following measures are included in the RDP for Flanders 2007-2013:

**Skylark patches**: The aim is to create small patches in a cereal field which are not sown and provide favourable feeding and breeding places for skylarks for a long period in spring and summer. Skylarks are thus able to have multiple broods a year which is important to restore the populations.

Payment is 15 € per patch and the following conditions apply:

- The parcel is a field with a cereal crop (not maize) and has a surface of at least 0.5 ha;
- Scattered over the parcel a number of small patches (16m² as a minimum) are not sown;
- The distance between the patches and high elements in the landscape (buildings, lines of trees etc) or roads with busy traffic is at least 100 m; the distance to a wood (of more than 5 ha) is at least 250 m and the distance to the border of the field is at least 20 m;
- Riding tracks may not touch the patches;
- The patches can rotate within the fields but their number must remain constant;
- Two patches per ha should be created with a minimum of 2 per parcel.
**Winter stubble:** The aim is to retain a stubble which is not treated with pesticides and thus provide winter food for different farmland birds. Payment is 50 €/ha/year and the following conditions apply:

- The parcel is a field with a cereal crop (not maize), peas, horse beans or flax;
- No pesticides may be used before harvest in autumn and until 15 March;
- Local control of thistles is allowed;
- The stubble must be maintained until 15 March of the following year;
- The stubble may rotate over the farmland on a yearly basis;
- Maximum is 5 ha per farmer.

**ENGLAND (UK)**

The following skylark friendly measures under the Entry Level Stewardship Scheme are open to all farmers and land managers in England:

**Skylark plots:** The aim of this option is to provide suitable habitat for skylarks in arable fields sown with winter cereals. Payment is 7 € per plot and the following conditions and guidelines apply:

- The field shall be sown with a winter cereal, be more than 5 ha in area and of an open aspect;
- Fields bounded by tree lines or adjacent to woods shall be avoided unless the field is greater than 10 ha;
- To create the plot, the drill shall be turned off during sowing in order to leave an unsown area. This area shall be no less than 3 m in length or width and no more than 12 m in length or width; the precise size and shape may depend on what is practical with the drill;
- The plots shall be well away from field boundaries and shall not be connected to the tramlines;
- The plots shall be spaced across the field with no more than two plots per ha;
- After drilling the plots may be managed in the same way as the remainder of the field (i.e. they can be over-sprayed, receive fertilizer applications etc) but mechanical weeding of the plots between 1 April and harvest is not allowed;
- The option is rotational, i.e. the plots may move around the farm with the normal arable rotation but the total number of plots must be maintained.

**Over-wintered stubbles:** The aim of this option is to provide a beneficial habitat for brown hare and an important winter food source for seed-eating birds, from spilt grain and seeds of broad-leaved weeds. It concerns the management of land following the harvesting of a combinable crop such as cereals (except maize), oilseed rape, linseed or field beans until 14 February the following year. Payment is 178 €/ha/year (222 €/ha/year on organic farms) and the following conditions and guidelines apply:

- Straw shall be baled or chopped and spread after harvest;
- A light surface cultivation to encourage weed germination and loosen any surface compaction or capping is allowed before the end of September (or within the first month following harvest, if later);
- Tramlines may be subsoiled following harvest to remove compaction; this is recommended when there is a risk of soil run-off;
- Other forms of cultivation or soil management are not allowed;
- Application of pre-harvest dessicants or post-harvest herbicides is not allowed;
- Application of pesticides, fertilizers, manure or lime to the stubble is not allowed;
- Topping or grazing is not allowed;
- The stubble must be followed by a spring-sown crop;
- The option is rotational, i.e. it can move around the farm within the normal arable rotation but the total surface area must be maintained.

**Cereals for whole crop silage followed by over-wintered stubbles:** The benefits of this option are the provision of a rich seed source in the winter stubble and from the unripe grain. However, harvesting as whole crop silage may shorten the period where the area is suitable for breeding skylarks. Payment is 340 €/ha/year (370 €/ha/year on organic farms) and the following conditions and guidelines apply:

- A cereal crop (except maize) must be sown in autumn or spring;
• The crop must be harvested as whole crop silage;
• Application of insecticides is not allowed between 15 March and harvest;
• Application of herbicides is restricted (only a very limited number of herbicides may be used and only within specific periods, depending on the kind of weeds to be controlled);
• There are no restrictions on the use of fungicides or growth regulators;
• Stubble must be retained until at least 15 February in the following year and must be followed by a spring-sown crop;
• Maximum area is 5 ha per applicant;
• The option is rotational, i.e. it can move around the farm within the normal arable rotation but the total surface area must be maintained.

In addition to these measures, several options of potential benefit to skylarks exist under the Higher Level Stewardship Scheme. Support under this scheme is discretionary and is normally only suitable for land that is of significant environmental interest. Within the general objective of wildlife conservation, priorities and targets are defined on a regional basis. Although skylark will usually not be a main target species, some of the options within the scheme will, as a side-effect, benefit skylarks, e.g.:

• Fallow plots (rotational or non-rotational) for ground-nesting birds;
• Reduced herbicide, cereal crop management preceding over-wintered stubble and a spring crop;
• Low input spring cereal to retain or re-create an arable mosaic.