

# **Lough Allen Farming and Wildlife project**

## **Interim Bird Conservation Measures**

(Interim Conservation measures for [Lapwing](#) and [Merganser](#))

In the work of **The Lough Allen Farming and Wildlife project** and [www.loughallenbasin.com](http://www.loughallenbasin.com), unseasonable high water levels have been identified as a threat to rare species in the area. Means and the necessary dialogue to reduce these Summer high water levels are being discussed and relevant authorities will be approached. But, this is going to take a long time. This Heritage Submission seeks to address and support interim measures that can be implemented, particularly aimed at maintaining or increasing bird diversity in the area.

Lough Allen contains several extremely rare species of plants and animals which have survived in the area since glacial times. These are rare in Britain and Ireland and may be unique in Europe. Unfortunately several of these are particularly dependent on a fixed water level such as folklore describes as traditional on the Lake in summertime up until quite recently. It is only in recent years that the influence of high Summer rainfall has become so apparent as we get to understand the ecology of the Lake more. It is remarkable that it is mainly since the millennium started that both rare species have been identified and recorded and also the Summer water level has frequently been higher than normal. Of the rare plants, Irish Lady's Tresses, Mudwort, and Blue-eyed Grass would be particularly vulnerable to unseasonably high water levels, though tolerance to this at other times would be very much part of their life cycle.

Among the animals which are special to Lough Allen, both the Pollan and the Shrimp (*Mysis relicta*) may not be vulnerable to changing water levels \_ being entirely aquatic animals. However Lough Allen has many other interesting Vertebrates which are not seen to be thriving. To put it simply, Lough Allen is a disappointing place for birdwatchers both in Summer and Winter. This conflicts with stories and experience of hunting on its shores in years gone by.

### **The High Water dilemma.**

Our overall plan for conservation of Lough Allen is a major undertaking which will take many years and involve a LIFE application. In the interim it is necessary to undertake a series of smaller steps to initiate the protection of individual species which may be becoming either very rare or may have stopped breeding in the area. This is one of these submissions, and relates specifically to providing better facilities for Birds in the area.

Special category birds, or birds which are typical of Lough Allen and may be breeding less successfully, would include Kingfisher, Common Sandpiper, Curlew, Lapwing, Red-breasted Merganser, Grebes, Water Rail, and commoner Ducks such as Tufted Duck and Teal. Many other species of Duck are listed as rare breeding species in Ireland. Lough Allen, because of its isolation and its many quiet backwaters, should probably have

much healthier populations of these species \_ if only high Summer water levels can be controlled. Typically, what we see now are small broods of ducklings, often a pair can be seen with just 1 offspring. Large broods are rarely seen. At the same time we are experiencing flooding of the lower levels of Lough Allen in the early Summer. Is this fluctuating water level drowning nests of Ducks and other shoreline species? The Common Sandpiper is a typical bird of Lough Allen and still arriving in good numbers in the Spring. It is not known how successful these are at producing young and they are certainly still to be seen around the Lake in early Summer when we have in recent years experienced rapid flooding of the shoreline.

This is why one of the main goals in the two projects referred to above is to seek through cooperation with relevant authorities to have the water level of Lough Allen maintained at a lower level, more in keeping with the traditional and natural summertime level, that will provide both a larger area for onshore grazing and protect both the plants and animals (birds) that flooding may be putting at risk.

## **Interim Measure to Conserve and Enhance Bird Populations around Lough Allen.**

To increase Bird Diversity in the area we suggest the following steps. Firstly bird species that are 'scarcer than they should be' need to be identified. These would include species that are extinct in the locality (such as the Corncrake) and species that are heading that way (the Lapwing?), perhaps giving emphasis to the latter. Apart from the water problem, birds are also suffering from a decline of biodiversity in the area and a loss of feed species. A typical example of this is the loss of the oat crop many years ago with the demise of working horses on farms. This can be tackled through the LINNET project referred to in **The Lough Allen Farming and Wildlife project policy** document.

Other species that may or may not ever have bred in the area would include Garden Warblers, Terns, and other species that migrate through the area and might be attracted by the provision of suitable facilities for them locally.

The purpose of such interim measures is to add to the overall Biodiversity of the area both in terms of protecting our heritage, increasing the numbers of birds present, and complementing the few striking rarities that do occur among the plants and aquatic animals. It will also provide a broader base for research and study, observation and enjoyment of nature, and practical conservation activity for volunteers and workers in the area.

## **What Bird Species are we talking about?**

The following lists group suitable bird species that may be won back or increased in numbers by providing an appropriate response to their requirements and, particularly, ameliorating any dis-improvement in environmental conditions that may be driving them towards extinction in this area.

### **Birds threatened by Higher Water Levels:**

The following species nest on or near the water and they either have been observed, or are suspected, to be affected by recent changes in water level, or could benefit from stabilised nesting situations:

- Red-breasted Merganser
- other species of Duck
- Common Sandpiper
- Common Gull
- Common Tern (not presently breeding)
- Kingfisher

### **Other Wading/Water Birds:**

Wading Birds are birds often associated with sea shores and estuaries but many of these breed inland. They may breed on mountains, moorlands, or pastures as well as lake shores. However, they all have an association with wet shorelines or fields where they come to feed or settle after the breeding season. These large areas of shore and shallow water can be either freshwater or at the sea. The lower end of Lough Allen

seems to have been a popular resort for these birds in the area after the completion of breeding (e.g. Curlews), but recent flooding is causing them to move on from this area because of lack of available shoreline. A similar phenomenon may also explain the decline in White-fronted Goose numbers as winter visitors at the northern end of the lake. Lough Allen is losing, or about to lose, many significant parts of its biodiversity due to environmental change. Species that can be protected under this category might include.

- Curlew
- Lapwing
- Redshank
- White-fronted Goose

## **Birds of Prey**

- Owls.
- Buzzard.
- Golden Eagle.

Both Barn and Long-eared Owls would benefit from increasing tillage and availability of prey. Buzzards are naturally expanding and may find the Lough Allen Basin has much suitable habitat but, again, a shortage of prey? Golden Eagles may disperse into the area from Donegal and need to be protected, and people informed about them. Feed species for these birds would typically be small Mammals and these will have greatly decreased with the loss of arable farming to a large extent throughout the area in the 50s and 60s, also the lack of rabbits!

## **Seed Feeding small Birds:**

The LINNET project promoted both by the NPWS and Farming groups provides support for the growing of tillage crops in areas where this type of farming has died out. The Lough Allen Basin is an extreme example of this. It is now almost unknown to come across a ploughed field or a tillage crop in this area. Some crops will grow well, such as oats, others are more affected by generally poor soils in the area. However a mixture of Oats and Linseed is highly successful in bringing back seed eating birds to an area. These crops can be grown in small patches and they are traditionally not harvested but left for the birds! But, organic practices must be applied. Species that would benefit from such diversity would include all our favourite birds, but birds we should not presume on, e.g. the Sparrow, Finches, Redpoll, Linnets as well as other species which are no longer found in the area, like the Yellowhammer, not to mention its cousin, the Corn Bunting, which has become extinct in Ireland as a whole for the very reasons described above.

## **Possible Rare birds.**

One of the rarest native birds is the Corncrake. Flooding in the Shannon callows is one of the reasons given for its decline in that area. Holding back water in Lough Allen could help in a small way to control flooding in the midlands, but at a great disadvantage to the environment around Lough Allen! Steps can be taken to make areas of Lough Allen attractive to Corncrakes and possibly encourage them to re-settle in the area. But, in view of their recent history, this may be a rather long shot.

However, other rare species are expanding naturally and could be attracted to the area by various habitat preparation measures. (Habitat preparation is discussed in **The Lough Allen Farming and Wildlife project** document.) These species could be listed as:

- Garden Warbler (possibly occurs already)
- Woodpeckers
- Kite
- Crossbill (loves conifers)

## **Conservation Measures to improve Bird populations?**

Many of the following measures require the ownership or the use of land on or near the Lough Allen shore. Consequently such work can only be done by landowners or with their consent. The ways grant-aided

work of this nature can be undertaken would include direct landowner participation, beneficial leasing of the relevant land from the landowner, or a partnership between the landowner and the acting conservation body or individual. All means have their benefits but none are as straightforward or as quick to implement as a system where a farmer(landowner) directly sets aside land for conservation, manages it himself/herself, and enjoys the benefit both in terms of biodiversity and grant support.

## **Proposed Means of encouraging Bird species and numbers.**

There is a very big list of species at the beginning of this submission. It would be our goal to see populations of all these species developing or enlarging to viable sustainable populations around the Lough Allen basin. However, they will often require species specific management approaches some of them very specialised indeed (e.g. The Kingfisher). Consequently, in this section we have devised a two pronged means of assessing initial project species.

1. Species that are under significant threat and are essential to preserve, and
2. Species whereby the path to conservation is clear, well established and do-able in the context of this area and the resources available.

Using these criteria, the following four species have been selected as a direction for an Interim Bird Diversity plan:

**Lapwing**

**Merganser**

**Common Tern, and**

**Garden Warbler\***

The first two are in the area and definitely under threat. The Common Tern is a new species that might be attracted to stop in the area by means of the simple device of providing suitable floating tern platforms in quiet areas of the lake near to the shore. This may initially attract migrating birds to rest here and possibly over the years establish a colony in the area.

\*The Garden Warbler is reputed to occur on islands in the Shannon Lakes. Inishfail or O'Connor's Island in the south of the Lake certainly has a rich presence of Sylvia warblers (the group to which the Garden Warbler belongs). So, listing this species here would be mainly on a research and discovery basis. An effort to survey the island last year was missed due to high water levels but should be a priority this year. In Ireland around 1990 there were estimated to be about 200 pairs in the country. To establish this species as breeding in Lough Allen would be another coup for the area as a centre for rare and endangered plants and animals.

The other 2 species have definitely bred in the area but the Lapwings in particular are disappearing from their former haunts. The reasons for this need to be investigated and, if possible, reversed. Whilst the water level problem is too big to be addressed in this Interim Proposal, the other species (Merganser) is included because this is a species that nests among trees and is exposed to the problem of a flooding nesting area? Can it be facilitated by providing nesting boxes in suitable tree-lined shore areas which will keep the nest protected from any unseasonal flooding?

The rest of this proposal therefore concentrates on conservation measures for Lapwing and Merganser but with more emphasis on the Lapwing as it seems to be disappearing more quickly; the measures that might conserve it may be simpler to install, and it would be a very important native species to secure as a strong and healthy breeder in the area.

## **A conservation strategy for Lapwing.**

The Lapwing is a species that used to breed widely in Ireland but has been in decline for many years. It is a highly attractive species both visually and audibly. It is a joy to watch both in Winter and when displaying at the nesting sites during the Summer. It could easily become a bird that could symbolise any Lough Allen basin conservation project.

### The History of Decline in Leitrim and elsewhere.

Lapwings have all but disappeared from the Lough Allen area. It is not known how many (if any) successfully raised young this year. Sporadic breeding was recorded in the past several years. However going back 20 or more years this was a common bird in the area. As discussed below, Lapwings will occur both in tillage and pasture and were one of those species affected by the loss of tillage.

This pattern of loss is also evident through the north west and is probably mainly due to the improvement of marginal land and new farming practices. Ireland as a whole has suffered losses of approximately 50% in this period, which is a similar figure to Britain and Europe. In the Shannon callows there has, for example, been an 82% decline between 1987 and 2002.

#### Conservation Methods for Lapwing.

In many parts of Britain and Ireland a majority of Lapwing nesting will occur in arable land. As no such land is presently available in the Lough Allen area most of the Lapwing breeding areas have been in pastures (Sheep/Cattle) or in-bye land that is wet and with low vegetation. An excellent and detailed analysis of a similar situation to ours can be found at [www.peakdistrict.gov.uk/bap7\\_2\\_1.pdf](http://www.peakdistrict.gov.uk/bap7_2_1.pdf) This refers to conservation plans for the Lapwing in the Peak District of England. Here the pattern of decline has been very similar to that found in Ireland.

They list adverse impacts as follows:

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#### **Land Management**

*Continued intensification of in-bye and rush pasture, including high stocking rates in the breeding season, re-seeding and conversion to silage.*

*Reduction in soil moisture content (and consequent decline in availability of invertebrates) due to soil compaction through heavy grazing pressure.*

*Field drainage leading to reduction in soil moisture content.*

*Abandonment of cattle grazing on in-bye pastures due to the economic decline in upland farming. Sensitive cattle grazing can promote a varied sward structure with suitable breeding sites and a rich invertebrate fauna.*

*High nest losses during spring machinery operations, e.g. rolling, muck spreading and silage operations.*

#### **Others**

*Increasing rates of egg and chick predation owing to increased numbers of predators such as crows. This is particularly significant when lapwing are nesting in sub-optimal habitat.*

*Recent run of wet springs in the 1990s, leading to low chick survival.*

*Tree planting proposals have threatened a number of important lapwing colonies where the importance of these sites has not been recognised.*

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The Agri-Environment Scheme Management Plan for Lapwings in Lough Erne is working on uninhabited islands in Lough Erne and has removed mammalian predators such as foxes. Abandoned fields with much scrub and rushes were designated as possible Lapwing areas. The rushes were cut in broad bands running down to the shore, leaving strips in between as cover for the chicks. Alder and Gorse scrub was removed because of its height. Lapwing breeding has increased from 0 to 20 pairs in the past 5 years. Redshank also breed on these islands. This project recommends Cattle or Horse grazing rather than sheep grazing. The strips (plots) where successful breeding took place were adjacent to one another whereas an individual plot elsewhere on the islands suffered much more from predation by Hooded Crows and Gulls. Lapwings will not nest generally within 100m. of trees and stand alone trees were cut down to discourage Crows mainly.

Similarly, in the Shannon callows, Lapwing habitats are also being provided on islands with similar policies of removing scrub and isolated trees.

Finally, the following extract was taken from [www.birdlife.org](http://www.birdlife.org) and very succinctly describes the needs of the Lapwing.

*'Short swards are the most profitable foraging habitat for the species so the application of cattle-grazing, preferably intensively (e.g. > 1 cow per hectare), may be successful in increasing abundances of the species on grasslands. On coastal grazing saltmarsh however it may be desirable to exclude cattle from selected areas in the spring where the rate of grass growth is slow. In the UK it has been found that a mosaic of unflooded grassland, winter-flooded grassland and shallow pools may provide optimal conditions for this species to breed. It has also been found that shallow pools on coastal grazing marshes should be maintained until the end of June, as the aquatic invertebrates contained within them can be an important part of this species's diet. Another UK study found that the species shows a preference for feeding in rills (relict saltmarsh drainage channels) in coastal grazing marshes, especially those with many branches. It is possible to attract breeding pairs just by flooding rills during April and May to create water-margin habitats for feeding, rather than extensively flooding the land (i.e. marshes can therefore be managed to encourage lapwing breeding without*

*preventing the grazing of cattle). At Lower Lough Erne in Northern Ireland the species showed a preference for nesting in the spring on open areas created by cutting rush beds in mid-winter. It is also known to show increased hatching successes when ground predators have been excluded by erecting protective cages or fences around individual nests or nesting areas. The number of breeding pairs on improved grassland was successfully increased on a reserve in Wales by the implementation of a two-year rotation of chisel ploughing, as well as a seasonal sheep and cattle grazing regime and a controlled increase in the water-level.'*

To summarise these reports and to define a pattern of management that will successfully enable Lapwing to breed, we need to set aside land for use as a future breeding colony that is...

1. Not overlooked. Lapwings like open terrain where they can spot predators a long way away.
2. Not intensively managed or drained.
3. Probably with continuous low level grazing by either horses or cattle.
4. That may be secure from Mammal predators and Crows, e.g by removing trees suitable for perching
5. A variable but not high (below 10cm) vegetation and a rich source of invertebrate foodstuff.
6. Some patches of shelter for the chicks.
7. Maintenance and availability of un-improved grassland and mixed farming.
8. Alternatively, fields after an arable crop, such as grown under the Linnet programme, may yield a suitable habitat for Lapwings in following years. Spring sown tillage particularly suits the Lapwing.
9. No disturbance by machinery during Spring and Summer.
10. Lapwing fallow plots have also proved successful whereby Spring cereals or Potatoes are planted and not harvested until the end of July, particularly with damp grazed land nearby for chick feeding.
11. It should be recognised that tree planting in certain areas will impact on Lapwings (but will benefit other species)!
12. Much research needs to be done around Lough Allen to identify certain locations but the best places may be near where Lapwings breed or have recently bred.

Lapwings traditionally return to areas where they formerly bred. If breeding is disturbed here they may move into neighbouring suitable locations if we can provide the sort of conditions that meet their needs. But Lapwings are sociable birds and they are very dependent on the presence of a colony and a site that is relatively clear and open so that they can defend their nests as a colony. Encouraging colonisation of new areas by 1 or 2 pairs will always be difficult to sustain. This sort of conservation work is a fundamental part of the concept of the Lough Allen Farming and Wildlife programme, as is the identification and establishment of funding procedures for any successful work of this nature. Similar programmes are being promoted in Britain.

*"Lapwings are primarily farmland birds and only a fraction of the UK's lapwing population breed on nature reserves. That means that the work of farmers is crucial, as is ensuring that improvements to farmland do not affect farm income. Finding ways of enabling farmers to manage habitats better is a key part of the project. Known in some parts of the country as the "farmer's friend", Lapwings eat flukeworms, which can cause disease in sheep."* (Mark Bolton, research biologist at the RSPB)

It may be possible to both provide the habitat but also attract the birds. A very interesting report shows how quickly this was achieved at a new habitat in Dorset within the first year of its establishment. The quote below highlights the positive result but also the evident excitement on the part of the writer.  
([www.dorsetwildlifetrust.org.uk/Wading\\_birds\\_breed\\_on\\_brand\\_new\\_wetland.html](http://www.dorsetwildlifetrust.org.uk/Wading_birds_breed_on_brand_new_wetland.html))

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*Wading birds have bred successfully on a brand new wetland area. Dorset Wildlife Trust has created the new habitat on its Tadnoll and Winfrith nature reserve and staff have been amazed at how quickly the birds have moved in.*

*Sarah Williams, Rivers and Wetlands Conservation Officer at Dorset Wildlife Trust, said: "We were hoping to see waders feeding on the new scrapes over the winter, with the possibility of breeding within a few years. I am over the moon that both lapwings and curlews have found the new habitat good enough to raise their young in the very first year. We hope these will be the first of many waders to breed here."*

*Lapwing and curlew pairs raised two chicks each, but the curlew chicks are believed to have been killed by foxes or dogs. The two young lapwings made it to full size and have now left with their parents. Lapwings, an endangered species, last bred at Tadnoll and Winfrith 8 years ago and curlews around 20 years ago.*

The wetland consists of two scrapes (shallow temporary ponds) on the old Prison Fields. Work started last summer, and sluices were installed on the existing ditches to hold water and shallow temporary ponds (or scrapes) were added to provide wet, grassy flushes.

Wading birds first started using the area last winter, with visiting green sandpipers, snipe and lapwings. This spring, dragonflies were among the insects on the scrapes, attracting hobbies, small falcons which hunt the dragonflies. (Dorset Wildlife Trust)

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## A Conservation Strategy for Red-breasted Merganser.

Red-breasted Mergansers are sawbill ducks feeding by diving for fish on large open lakes such as Lough Allen. They are still present here and can frequently be seen actively feeding in the Summer either with or without a brood of ducklings. Frequently the size of the brood may be very small (one!) indicating either poor breeding or predation. Poor breeding may be a result of increasing water levels during the breeding season. This is a 'worthwhile' bird as it is neither particularly common nor ubiquitous and its breeding success elsewhere may be also declining. It likes to nest among trees and the typical Lough Allen Alder carr may be one of the reasons for its presence in the area. But it is a ground nesting bird and not immune to flooding as a true tree-nesting species of Duck may be.

Mergansers are an important part of the Lough Allen natural heritage and any steps possible should be taken to help them survive and prosper in the Lake. An obvious measure would be to provide nest boxes out of the way of flooding, but unlike its cousin, the Goosander, Red-breasted Mergansers are true ground nesting birds. The description of a nesting box below comes from the BTO (British Trust for Ornithology). Unfortunately all descriptions repeat how near the Box must be to the water and the ground.

### **Red-breasted Merganser** *Mergus serrator*

#### Hole Entrance/Tunnel

The box should be a long floorless hole entrance box placed on the ground - almost qualifying as a tunnel. Height at least 200mm, width 350mm, depth 450mm. The hole at one end only should be about 120mm in diameter. The box should be placed in thick vegetation facing the water. Take precautions against ground predators.

Nest: lined with plant material, abundant down and some feathers. Eggs: 7-12, stone-buff.

The following biographical details are again from [www.birdlife.org](http://www.birdlife.org)

*This species is fully migratory although in temperate regions it only undertakes short distance movements to nearby coasts or remains close to its breeding waters throughout the year. It breeds from April or May (later in northern populations) in single pairs or colonies on islands or small islets, adults often assembling in groups on beaches when not at the nest (even when nesting solitarily). Males leave the breeding grounds in June to moult in small groups along the coast, often considerable distances from the breeding areas (although there is no evidence for any major migrations to common moulting sites). The autumn migration begins in September and the species returns from the wintering grounds as early as February. It is gregarious during the winter and on migration, flocks of up to a hundred or more occurring in suitable sites during the Autumn (although it travels in much smaller flocks during the spring). **Habitat** Breeding: The species breeds along the wooded shorelines of deep lakes, small rivers and streams with moderate currents in the tundra, boreal and temperate forest zones, as well as on more saline waters such as sheltered shallow bays, inlets, straits or estuaries with sandy rather than muddy substrates. It shows a preference for narrow channels rather than open expanses of water, with islands or islets and spits, projecting rocks or grassy banks. Non-breeding: The majority of the species winters at sea, frequenting both inshore and offshore waters, estuaries, bays and brackish lagoons but showing a preference for clear, shallow waters not affected by heavy wave action. It will also utilise large freshwater lakes on passage. **Diet** Its diet consists predominantly of small, shoaling marine or freshwater fish, as well as small amounts of plant material and aquatic invertebrates such as crustaceans (e.g. shrimps and crayfish), worms and insects. **Breeding site** The nest is constructed within 25 m of water in a variety of locations such as natural cavities on the ground, burrows, under boulders, amongst tree or scrub roots, in tree cavities, artificial nestboxes, amongst reeds or on floating reed mats. Where tree cavities or artificial nestboxes are utilised, the species shows a preference for those with entrances c.10 cm in diameter and with internal diameters of 30-40 cm. **Management information** The breeding density of this species increased on islands in the outer archipelago of south-west Finland as a result of feral American mink *Neovison vison* removal. The species will also nest in artificial nestboxes with entrances c.10 cm in diameter and with internal diameters of 30-40 cm.*

Considerable research is obviously needed if we are to initiate any pro-active conservation measures with this species. Little is known about the distribution of Red-breasted Mergansers in Lough Allen but it seems as if they may breed in the northern end of the Lake and move further south after breeding or for moulting. Three conservation measures might be adopted:

1. Succeed in getting the Lake's water level controlled during the Summertime!
2. Entice them into an area where water level could be controlled.
3. Establish nest boxes on slightly raised 'crannogs' so that the birds might be persuaded to nest slightly further from any encroaching flood waters.

We can discount the first option as the purpose of this report is to give speedy interim benefits. The second option would seek to establish a breeding base in a small lake close to Lough Allen which the birds might be attracted into through the provision of nesting boxes (feeding?). However it seems that this species may like to nest near its feeding grounds rather than having to fly to them; they may be flightless during part of the breeding time!

The third option of providing a gently raised platform of stones onto which a nest box would be placed, seems the most likely option. However, as of yet we have found no reference to such a method or if it would work. Also, the ramp would need to be up to 80cm above 'normal' water level. However, the Birdlife description above does give some indication as to why they are in Lough Allen and what areas most suit them. It also refers to floating reed mats as a natural breeding site; possibly artificial reed mats could be established in suitable quieter lagoons and backwaters around the northern half of the lake?

It is interesting to note that they are described as feeding on Shrimp and it is only recently that we have become aware of such a prey species being available in the Lake, *Mysis relicta*. If there is a strong attraction for the species in Lough Allen, they may well keep nesting here. If we can adjust breeding behaviour to the current problem of wildly fluctuating water levels, we may well be able to do something to bring this population up to healthy numbers.

A programme for Merganser conservation might entail the following elements.

1. Check Distribution around the Lake.
2. Try and identify feeding and breeding areas (also food type)
3. Locate nest sites and establish their position relative to the water.
4. Study behaviour at nesting locations.
5. Try and determine how Mergansers might be attracted to slightly raised nest boxes?
6. Test the possibility of building and anchoring artificial reed mats as potential breeding sites.

The process is much less straightforward than for Lapwings but the Mergansers, also, may be under slightly less threat. Obviously the final solution may be to try and return Lough Allen's water to a more stable and lower level that we have experienced in some recent Summers. This would benefit many rare, very rare, and uncommon plants and animals which make up its unique heritage.

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Submitted for discussion, and approved, as a basis for a Heritage Grant application.

Lough Allen Farming and Wildlife project

11/11/2009