

LIFE ON MACHAIR ~ NEWSLETTER 2

Returning birds | Scottish connections | Pollinators stirring

First flowers



Spring can be late on machair systems, exposed as they are to cool air from the Atlantic. When they warm up however, the results can be spectacular. Carpets of wildflowers are the future but for now, the first contenders have started to show.

A recent wander through sites across Belmullet revealed some of the very first flowers, just in time for some early pollinator species. Hints of so many to come were evident in a complex leaf pattern across the sites. Creeping willow was providing much pollen for hoverflies, some small yet very beautiful flowers were poking their heads up such as the bittercress above and speedwell emerging below.



The birds are back!

The dunes are alive with the sound of birds. First to start singing at our sites were the wonderful skylarks (pictured below). These were soon joined by lapwings with their haunting sounds and snipe, drumming as they fall towards the machair. Meadow pipits, linnets, twite and chough add to the medley, to name but a few. Some of the sites are lucky enough to have redshanks, many host oystercatchers and a number of duck species such as shovelers, teal and mallard. The latest sound, arriving like clockwork each year, is the cry of migrating whimbrel (click on the link to hear). Stopping to refuel, these beautiful, curlew-like birds will fill our frequencies for most of May, before taking on the 3,200 km, non-stop journey to their breeding grounds in Iceland.

All of this reminds us of what the continued efforts by farmers and landowners are all about. Thanks to the careful grazing, stock management and multiple other measures, these amazing sites are ready to host both breeding birds and provide life for the wandering traveller.





Belted beauty



Not much bigger than a ladybird, this fascinating, well camouflaged, flightless female belted beauty moth is awaiting its mate. Only found on coastal sites and even then, restricted to counties Galway and Mayo, this amazing species shows the importance of well managed machair systems.

As the female is flightless, the populations are very vulnerable to habitat changes as they cannot relocate. They rely on a select few plants for their caterpillars, kidney vetch being one of those, a plant that was seen emerging in abundance at this site.



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Camera trap tech

The secrets of our machair sites are being revealed as never before. Thanks to the patience and hard work of our project officers, most sites now have camera traps in place. A number of models are used but they all provide high quality, robust images that are linked to a single account. The account holder gets notified of any cameras that are triggered, with a photo sent immediately to their phone or pc. Animal identification is an option with these cameras, as is high quality video and of course, night vision.

Such high tech deployed at these remote, exposed sites allows the project officers and landowners to not just monitor birds, but also see any animals that are trying to breach the fences, or just passing through the area. Their primary function of course, is for the ground nesting birds. Species such as lapwing like to nest in vegetative height that is quite short in proximity to longer tussocks of grass to hide in. Constant vigilance is required from the parents, not just to keep the eggs warm but crucially, to fend off opportunists such as gulls or crows looking to snatch an easy meal. Thanks to the tech, the team can see these developments in real time.





Red-tailed bumblebee queen



One of our 21 species of bumblebee, red-tailed bumblebees are not exclusive to coastal sites but are often found there. The queens, having over-wintered in the soft substrate, emerge very hungry, yet in perfect synchronisation with the first flowers. The humble dandelion is providing the much needed nectar in this case.

Mites cling tight to the queen, doing no harm, just hitching a ride. They are holding on until she establishes a nest for her own young. There they will let go and disperse, to breed themselves.



Connecting Irish and Scottish machair

A recent trip by Heather Lynch and Amanda Vestergaard of the Scottish project 'Muir is Tir' to the west of Ireland was a great way to build relationships and share



learnings, and share lots of laughter. We are hugely grateful to them for making the effort to visit our Galway and Mayo sites and look forward to building on this collaboration. Their important project is as interested in both forging local connections to, and preserving of the machair, as we are. Here are the thoughts of Heather after her visit to Ireland.

A' glèidheadh a' mhachair (Taking care of the machair)

An Artic Tern must fly 267 miles from Vatersay Bay (Na h-Eileanan Siar) to reach Murvey (Galway). Travel by public transport involves 519 miles; a 5 hour ferry journey to mainland Scotland, a 3 hour drive to Glasgow airport, a short flight to Shannon followed by a further drive of 2.5 hours. This suggests a remoteness that does not reflect the proximity of these places in relation to culture, social history, nature and geomorphology. The 160 nautical miles (approx) gives a more accurate reading of the connection between the Gaeltacht of western Ireland and the Gàidhealtachd of Scotland's Western Isles. The bonds between these Gaelic communities are not just language and music, but also the formation of the machair.

Machair is a coastal grassland only found in the west coasts of Scotland and Ireland. It is formed through rotational, cultivation and grazing, and produces a rich grassland of rare orchids and a home for distinctive species of birds and insects. It is a precious landscape that is threatened in both Scotland and Ireland by changing practices of land stewardship, increased tourism and climate change.



Hoverfly mimicking a bumblebee



This beautiful chunky hoverfly is channeling its inner bumblebee. With the large hairy body and bright stripes, it is hoping that a passing bird will be tricked into thinking it's a bee, with a sting.

Easy to miss at first glance, it's all in the eyes. Bumblebees have a gap in between their eyes, each eye more to the side than a hoverfly. Our 180 species of hoverfly all have eyes that 'touch' - virtually no gap in between them, giving away the game. This hoverfly, possibly *Eristalis intricaria*, was feeding on a large patch of creeping willow at one of the wonderful Belmullet sites.

Scottish connections (contd.)

Muir is Tir, is a collective of the communities of Barra and Watersay, and researchers from art and science, working together to support practices of machair care that build coastal resilience.

Recently *Muir is Tir* researcher, Amanda Vestergaard, and I had the opportunity to travel from the western Isles, to visit *Machaire Beo* sites in Galway and Mayo. Unfortunately, not the 160 nautical miles but the 519 land miles, by boat, plane and car. The distance between these places is dissolved in the white sands of Murvey and Belmullet. The dune-scapes are reminiscent of those we left, but so too is the enthusiasm and love of machair that we encountered in the people we met. Like the Gaelic communities of Scotland, the machair is an expression of their deep bonds with the land and sea.

Scots Gaelic poet Ruaraidh Mhichthòmais refers to machair as 'dùthcas' or birthright. He indicates that the fate of the machair is bound to that of Gaelic culture. The work of machair care, is one of love. Labour that supports flourishing machair, also promotes the connection with nature that is central to Gaelic ways of living. We were inspired by the people undertaking this work in Galway, Mayo and Donegal. We returned to Scotland energised by the potential of machair communities that take the care for their land, culture, heritage and future into their own hands.

Thanks to all who made this wonderful experience possible.

Heather Lynch



Watersay bay ©Heather Lynch

Not just target species

Aside from specific targeted species, the project is interested in all the wildlife that healthy machair systems support. Many species breed on machair, many more use the habitats for feeding, rest and safe refuge.

We are collaborating with Birdwatch Ireland across a few of our sites. Thanks to enormous work and dedication from Birdwatch Ireland and local landowners/farmers, the Annagh marsh bird reserve has seen lapwing nests go from 0 in 2010 to over 70 in 2025!

Life on Machair is delighted to be able to support some of the landowners with actions that help our national bird as well as so many others.

A mute swan was keeping a watchful eye on the people coming and going outside the fenced, protected area.



One of the heaviest birds in the world, they are not strictly mute but certainly don't call like our other main swan species, the whooper swan. Once the whoopers were heading back to their breeding grounds in Iceland, the mute swans were rebuilding their nests.

[Find out more about Annagh marsh at this link.](#)

[And more on our target species](#)

Hand-made Machair quilt presented to Áras Inis Gluaire Arts Centre in Belmullet

In using their creativity and crafting skills, the women's group in the Solas Heritage Centre in Eachléim hand-made this beautiful Clann Lir Quilt, illustrating the beauty of the local wildlife and nature on their Machair, breeding wader birds, rare pollinators and wildflowers, all included on this large quilt together with an acknowledgment of the connection to the old story of Inis Gluaire, Clann Lir.

On April 18th, we gathered in Áras Inis Gluaire Arts Centre in Belmullet to celebrate the commitment and passion these women, Mná an Mhacaire, displayed by giving their time and talents to produce this beautiful quilt, where each square tells the story of how their homeplace is connected to the very special local natural surroundings.

In making this quilt, they also contributed a square to the National Quilt that the Women of Ireland sent to COP30 in Brazil, delivered by the honourable Mary Robinson. The square they added, used the stitched design of an hour glass, with images of the breeding wader birds, illustrating that we are running out of time for some of these endangered species which are now on the Red List.

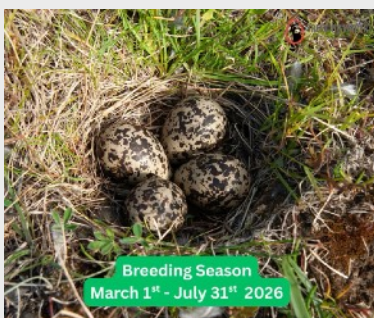
Cllr Seán Carey, Chairperson of Mayo County Council, and Michael Chambers, Education Officer with National Parks and Wildlife, Nephin, also gave high praise to the community spirit, acknowledging that the local sense of place very much included their coastal Machair lands where they live. The Clann Lir Quilt was presented to Áras Inis Gluaire Arts Centre in Belmullet for public display.



Dogs on the lead

Ground-nesting birds are particularly vulnerable to disturbance from us and our furry friends. Studies have shown that some birds abandon their nest after being disturbed as few as three times. Even if you are sticking to the paths, your dog might not be, especially if it's off the lead. This will flush birds from their nests, causing all the efforts of the program and the participating farmers to fail when it comes to birds. It is so important to, if possible, avoid bringing your dog to machair sites during the breeding season from March to July and please, please, keep your dog on its lead at all times on these sensitive sites.

We were delighted to participate in the Breeding Waders EIP campaign raising public awareness around dogs and the hidden disturbance that they cause.



www.lifeonmachair.ie

Land reclamation

Murvey in south Connemara is a beautiful, wild, exposed townland. The typical, undulating fields weave in between the myriad of inlets, each nestling a beach more beautiful than the last. Much of the habitat in between each inlet is machair and has been farmed for a very long time. Recently however, concern has been increasing amongst landowners around erosion and some catastrophic erosion events.



Climate change is bringing more energy into our weather systems and this is as evident on the Connemara coast as anywhere. More energy means more destructive eroding potential, which can lead to blowouts. Blowouts occur when the grass and other plants cannot hold the sand in place, causing a chink in the vegetative armour. Once sand starts to move, it tends to wear away at the surrounding edges, making the blowouts ever bigger. Not a new phenomenon on machair, extra energy in the storms from climate change has made this problem worse. Small blowouts are a natural occurrence on machair, these were on a different scale.

Land was being lost at an alarming rate in winter storms and the farmers were determined to do something about it. The first step was for all land users to remove their grazing stock. This eased the pressure on the existing vegetation. The next step was to place chestnut fencing, a light, easily handled, pre-made fence that traps the sand. As the wind blows through the fence, it loses speed, thus power and the sand its blowing falls to the ground. This continues and the sand starts to build. Then, thanks to the removal of grazing animals, the plants do the rest.

Specialised sand dune building plants

Most plants can't tolerate the dry, windy, salty conditions where the land meets the sea. There is a range of plants however, that can and do tolerate these tough conditions. And thank goodness for them. They are the first line of defence against our storms that are increasing in strength. Called halophytes, they are able to tolerate a certain amount of salty water which most plants cannot. The other big danger for them is desiccation, or drying out. Worth a feel when you next pass by, many of them have very fleshy, tough leaves to help overcome this problem. Amazing little plants, without them, we wouldn't have sand dunes! Three of them are pictured below.



Sandwort



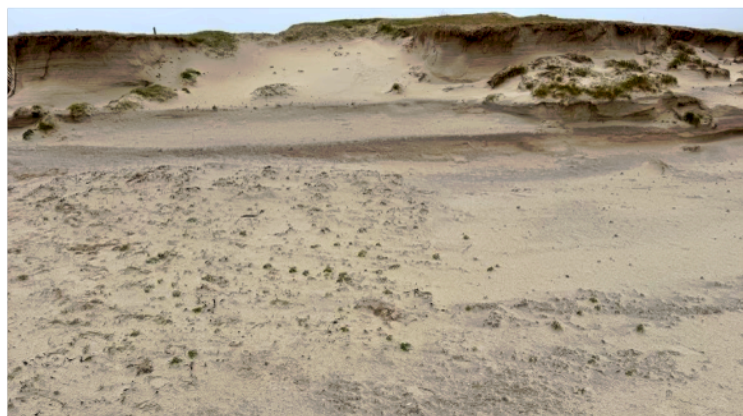
Stonecrop spp.



Common crane's-bill

Tough coastal habitat plants such as sandwort and stonecrop start the process. They spread across the sand, their ever-thirsty roots grabbing the sand and holding it in place. Couch grass and marram grass then start to weave their magic, binding the sand together as they spread through rhizomes, that is, sending up shoots from their spreading roots. Now all that's required is time. Time allows the plants to regain the upper hand, rebuilding their machair, metre by metre. The results have been quite dramatic. From animals being removed 3 years ago, the first cattle in a long time at Murvey were grazing one area for a short period this winter past, carefully monitored to graze just enough to encourage healthy spring growth.

Extra help was given to the plants by leaning into traditional methods of fertiliser. Seaweed that had washed up in storms was collected and laid on some of the plots. This helped to hold the sand in place and gave an extra boost of nutrition to the plants as it broke down.



Seaweed was on the left foreground, no seaweed on the right. The acceleration of plant growth can be seen on the left as a result.

Thanks to this collaboration between the farmers and through some excellent research and support from LOM's project officers, large swaths of machair are now being reclaimed for both farming, and nature.



Steering Group meeting

NPWS, LOM staff, Fáilte Ireland and local farmers met to discuss progress on sites in Connemara this spring.



Snipe

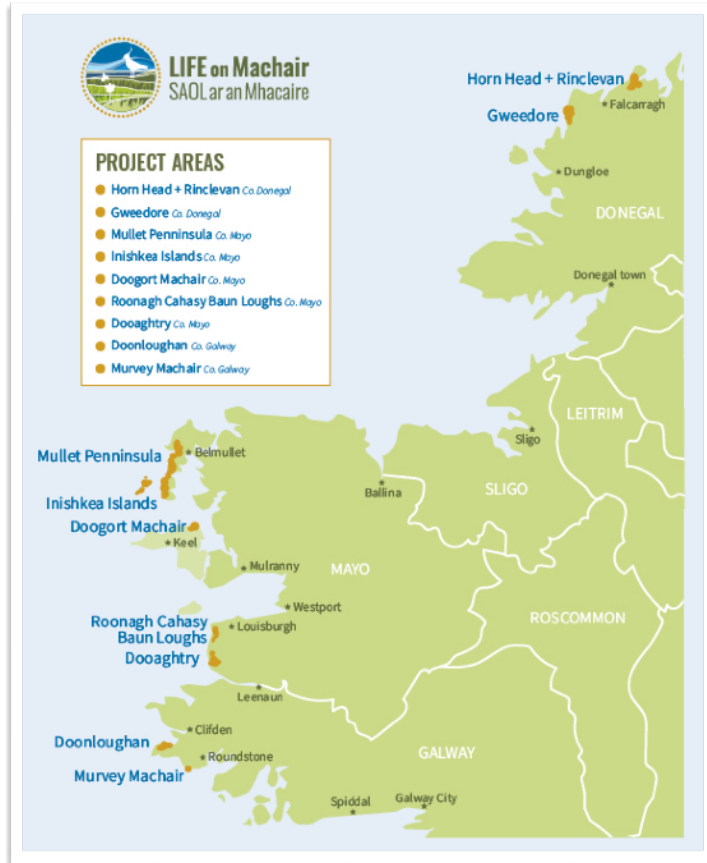
One of our most common ground-nesting waders is the snipe. With its unique drumming territorial call, snipes are a very special bird that breed on machair systems. [Have a listen at this link to their unique call.](#) The sound is made by specially adapted feathers either side of the tail. The bird flies high then falls, these special feathers vibrate on the decent to make this iconic sound. A once common sound at night across our dune systems and bogs, snipe 'drumming' can still be heard across our machair sites.

The breeding population swells in autumn when winter visitors from other countries such as Iceland pass through. They need a mix of wet grassland, free from sprays and other pollution. This is something the farmers on the LIFE on Machair scheme provide.



Project action areas

Have a look and see if any of the project areas are near you. We are looking forward to this summer, the flowers emerging, the return of sights and sounds of our insects and birds and most importantly, the collaboration with farmers, demonstrating how farming and nature can go hand in hand.



Don't forget to keep up with what's happening on LIFE on Machair by following us on Instagram and Facebook. Our website linked below will also give you more in-depth information on machair systems and so much more.

