
Crofting & biodiversity on the Machair of the Western Isles

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The three machair posters were part of a bilingual (English & Gaelic) Crofting & Biodiversity Exhibition produced by the Western Isles Local Biodiversity Action Plan Partnership in May 2008. The posters highlight the key role of crofters in maintaining machair biodiversity through traditional practices.

Machair is unique to the north and west of Scotland and Western Ireland and is at its most extensive in the Western Isles. Crofters play a key role in maintaining the machair flowers and other wildlife through traditional practices. These include seasonal or rotational grazing by livestock, rotational cropping that allow some years of fallow and the growing of both cereals and hay using natural fertilizers, seaweed and farmyard manure. The use of these natural fertilisers adds bulk, improves fragile soils and increases productivity.

Rotational or seasonal grazing – the removal of livestock for the summer or rotation of one half of the machair to another for a number of years – is advantageous to stock and to wildlife. Keeping cattle and sheep at appropriate stocking levels gives a variety of plants the opportunity to flower and form seed, which is beneficial to both insects and birds. It also gives grazing stock the opportunity to seek out a wider variety of forage.

The cereal crop in the western Isles is grown in various mixtures of small oat, rye and bere barley. These mixtures are useful in the rigorous conditions of the Hebridean summer where experience tells that they will give the best crop possible in any given year. The total cereal crop in the western Isles is a small percentage of the Scottish crop, but it is hugely important, as winter-feed for cattle, in the way it supports biodiversity and in its survival as a genetic resource. These grains have been grown for centuries possibly millennia, and are therefore comparable to rare breeds like Highland cattle, Hebridean sheep and Eriskay ponies. Crofters are to be congratulated for their hard work in preserving them.

Large areas of single crops do not provide the variety of habitat that can be found on small rotational plots of hay, corn and potatoes. This diversity in turn supports a greater range of plants, birds, insects including bumblebees. Reserving a portion of the crop for stooking also maintains numbers of small birds such as

corn buntings that benefit from the associated spillage of seed. Many of these same birds have a beneficial impact in summer when feeding their young on insects and other invertebrates gathered from crops.

Crop rotation and the use of locally sourced and appropriate seed reduce the need for expensive pesticides. This provides an opportunity for the biological control of pests, for example the various species of hoverfly larvae that feed on greenfly.

Increasing populations of some birds and animals, particularly graylag geese and rabbits, have had a detrimental impact on cereal crop returns, on hay and on grazings. Recently there has been some success in reducing their impact.