

How technology is helping conservation in Scotland



Drone |s eye view of the landscape.

By

[DAVE PARISH](#)

Published: 07:02

Updated: 14:57

Tuesday 13 February 2018

New developments could help our countryside, writes Dr Dave Parish

resulting in calls for action. Fortunately, in the 21st century, we have new tools and technology to help with this.



HA
YOUR



Dr Dave Parish, Head of Lowland Research Scotland, Game & Wildlife Conservation Trust

So, what is the best way to save valuable habitats and the species that rely on them in the face of urbanisation, deforestation, invasive non-native species and agricultural intensification?

Most ecologists now agree that intervention and active management of the landscapes and maintaining the rig of habitats on an appropriate scale that will allow wildlife to flourish, are crucial. The days of conservation thro inaction are long gone, if they ever existed at all.

Wildlife management requires knowledge and understanding of the problems, and skill in applying solutions, adding too great a burden on other land users. The latter may be controversial to some but is important: we ha appreciate that we cannot simply exclude competing interests; we have to find solutions acceptable to all.

Modern technology is now helping to inform wildlife management decisions. One excellent example is the use drones. These have become widely available and skilled operators can access otherwise inaccessible areas, and conduct survey work, often from a significant height. Drones can also be deployed to record a wide range of da a very large area, often very quickly, compared with the 'old fashioned' alternative of tramping across the coun with a notebook, binoculars and a compass. There is a huge saving in time and less disturbance to the wildlife.

Similar technology, greatly scaled-up, is deployed by satellite. These are not just there to keep mobile phones v many satellite networks collect data on land cover, temperature, gas emissions and, of course, the weather, and more besides.

Such technology is great for providing data at landscape, and even countrywide, scales, but what if our interest day-to-day lives of individual animals? Colleagues at the Game & Wildlife Conservation Trust have studied the

1

These are carefully fitted to the bird and, once activated, communicate by satellite allowing real-time monitoring where the birds go and how long they stay at each stopover on the way. This provides valuable data that fills a gap in their annual cycle, and helps to explain changes in the number of birds returning to breed, for example, that previously would have been impossible to monitor.

Sometimes wildlife management isn't about trying to increase animal numbers, but reducing or deterring them. Conservation projects may be so successful that their results create conflict with other land users.

One such case is that of sea eagles potentially killing farmers' lambs on Mull. The proposed solution is laser scare devices. These medium-powered lasers emit a green light which, when projected onto the ground near the birds, scares them away effectively. The lasers have huge range and could allow farmers to quickly and easily scare eagles from large areas of land. The same applies to geese and other potential bird pests, but the technology hasn't yet been tried on mammals.

[Actors Who Didn't Want To Kiss Their Co-Stars](#)

[Read More](#)

This is something GWCT is now looking at with multiple partners for the LIFE Laser Fence project. We hope to find ways to use lasers to keep some mammals out of areas we want to protect, providing a valuable alternative to traditional methods of control. It might be possible to keep rats out of grain stores, or deer away from busy roads, without resorting to poisons or expensive permanent fencing.

Technology might seem out of reach to the average 'citizen scientist', but that isn't the case. Advances in mobile phones and apps mean that the public is equipped to help with many tasks like data gathering.

Modern phones with their capability to process and store large amounts of information could be used to help identify target species and record even quite complex data. There are simple apps that allow logging precise locations of findings - exploiting satellites again - and accessing software like mapping programmes. It is likely that wider, better results will be achieved with the help of the latest technology in the hands of the wider public - and we are grateful for that.

Dr Dave Parish, head of lowland research Scotland, Game & Wildlife Conservation Trust.

0 Comments The Scotsman



Recommend Share

Sort by



Start the discussion...

LOG IN WITH

OR SIGN UP WITH DISQUS

Name

Be the first to comment.

[Subscribe](#) [Privacy](#)

More from News

Follow Us On

Explore

- [News](#)
- [Business](#)
- [Food and Drink](#)
- [We Know Scotland](#)

- [Sport](#)
- [Lifestyle](#)
- [Heritage](#)
- [Future Scotland](#)

More from The Scotsman

- [Announcements](#)
- [Directory](#)
- [Jobs](#)
- [Cars](#)
- [Conferences](#)
- [Local Guide](#)
- [Supplements](#)
- [Reader Shop](#)

- [Buy a Photo](#)
- [Digital Archive](#)
- [Homes](#)
- [Calendars](#)
- [Dating](#)
- [Public Notices](#)
- [Mobility Aids](#)
- [Must Read](#)

USEFUL LINKS

[Contact Us](#)

[Advertise a Job](#)

[Place your Ad](#)

[Edinburgh Evening News](#)

[Advertise My Business](#)

[Advertising](#)

[Subscribe](#)

[Readers Charter](#)

© 2018 Johnston Publishing Ltd. All rights reserved.

[Terms and Conditions](#) [Disclaimer](#) [Cookies Policy](#)