How far do eagles fly in a day?

How far do golden eagles travel in a day? To answer this question, we have to separate out dispersing from territorial (range holding) birds.

DISPERSING BIRDS

The maximum distance travelled (wiggly line) in a day by a dispersing golden eagle was 314 km (29 tags travelled more than 200 km). The average distance was a surprisingly high 199 km, about the same as the straight-line distance from Glasgow to Aberdeen and remember this is the average every day. The smallest distance was 73 km (Edinburgh to Paisley) but this was an old tag returning few locations per day so it is almost certainly an underestimate.

To put this figure into context the Proclaimers were willing to walk 500 miles (805 km), which is nothing compared with what a golden eagle is prepared to do.

If we use data from the newer tags, which return more tracking records, the distance travelled in 12 months seems to be in the range 10,000-15,000 km. To put that into context the earth has a circumference of 40,075 km. So, an average dispersing golden eagle flies approximately a quarter to a third of the distance around the world each year but within quite a relatively small area. A bird that takes three years to settle on a territory will have done the equivalent of flying around the world whilst remaining in a relatively small area of Scotland.

TERRITORIAL BIRDS

The maximum flight length, in a day, by a range holding golden eagle was 310 km, so very similar to the record for a dispersing bird. The average maximum length was 220 km, so all range holding golden eagles are capable of flying considerable distances in a day. The average flight per day was shorter at 29.1 km but that still works out at more than 10,000 km per year.

Most golden eagle ranges are less than 100 square km so all flight activity has to take place within those limits. The distances flown per year are similar to those for dispersing golden eagles in the range 10,000 – 15,000 km but in a much smaller area. Consequently, they must know every part of their range intimately. Using the mid point of 12,500 km, it will take a range holding golden eagle less than four years to fly around the world but, while doing that, it would rarely go more than 6km from the centre of its range.

It is 384,400 km to the moon so an average range holding golden eagle could fly halfway to the moon in 15 years. Indeed, all of the range holding golden eagles in Scotland (~500 pairs) fly the equivalent of to the moon and back 16 times each year. It must be dangerous being a potential prey item in a golden eagle range and you must be good at hiding to avoid being eaten.