

Last month's talk by Roger Avery was absolutely fascinating, however I was unable to take notes at the time. Roger was kind enough to provide me with his own summary, and I have given it, in its entirety, below. This month is exciting for two reasons. Firstly, the history of the real Dracula promises to be interesting if a bit gory. Secondly, September is u3a's publicity month. So, our Open meeting will be free to all and we encourage you all to come and bring a friend. Please also do visit us at our publicity stall in the market square on Saturday 19th.

Liz Ouldrige (Chair)

Important dates

15th September: Coffee morning for all at 'The cafe @ Mole Avon' in the Mole Avon Country Store from 10:30am.

16th September: Open meeting at the Boniface Centre. 'Dracula: The Man Behind The Myth', a talk by Ash Jones. Refreshments from 9:30am. The talk will start at 10:20.

19th September: Stall at the Farmers' Market. Please visit us for a chat.

20th October: : Coffee morning for all at 'The cafe @ Mole Avon' in the Mole Avon Country Store from 10:30am.

21st October: Open meeting at the Boniface Centre, 'The History of Halloween- a musical presentation' by Aidienne Sketcher

16th December: Christmas Lunch at the Waie Inn. More details next month. We will take bookings throughout October and November.

August's Talk: 'Bird Migration, how they do it and what we don't know' by Roger Avery

Like many phenomena in nature, the regular movement of billions of birds from place to place around the world – migration – is something we tend to take for granted. We expect to see swallows in the spring and wild geese in the autumn. But it represents a staggering achievement. The longest migration known is by arctic terns, which breed in the Arctic during summer but in autumn travel at least 15000 miles to the Antarctic. Then they make the return journey during the Antarctic autumn. An individual tern may travel more than half a million miles during its lifetime. Bar-tailed godwits may travel from Alaska to New Zealand, and incredibly, some individuals do the journey non-stop. In this talk I'll concentrate how these and other birds find their way.

Perhaps the simplest type of navigation is for juveniles to be taught the way on their first migration by older birds, which are mostly relatives. This happens in Bewick's swans. Birds which have bred in the western Russian tundra move in family groups to northwest Europe to overwinter.

But there are many other birds in which this couldn't happen. Adult swifts, for example, are malnourished after spending the summer feeding their chicks, so the well-fed youngsters leave on migration first while their parents catch up. They have to rely entirely on instincts which they've inherited. How do they navigate?

Well, they don't use one mechanism, they use many. Some of them use senses that we don't have so they're particularly difficult to study. Many birds can determine where they are by measuring the altitude of the sun in the sky, but for this to work they need to use their biological clocks – a subject in its own right! – to tell the time of day. In some circumstances they can use information provided by the plane of polarization of sunlight. If they're flying at night, they can use the stars. Many birds have a kind of stellar map. This was first demonstrated by putting birds which were about to migrate into a planetarium. If they were shown a sky which was "wrong", they got confused. They also have a compass. Actually, they have two, one located in the brain and one located in the eyes. They operate on different systems, both are extremely complex. Perhaps surprisingly, some birds can use smell to determine their location. This has been well-studied in homing pigeons, and also in migratory fishes like salmon and eels.

Birds aren't the only animals which might make migrations. Some mammals, reptiles, amphibians, fishes, butterflies, moths and beetles also do. If you have a garden pond, and frogs breed in it in the spring, they will have used many of the mechanisms described above to find it when migrating in from the surrounding gardens or countryside.