



## By Bill Naylor

Autumn is the main time for migratory birds to depart from the UK. Those who can't rely on stopovers or eat en route often build up fat reserves by eating fruit, and not just songbird specialist

insect-eaters like House Martins. Fruits contain a high proportion of carbohydrates and unsaturated fatty acids that can be swiftly converted to body fat, increasing body weight. This is one of the reasons migratory birds have been traditionally hunted for centuries, but no longer justifying the millions now needlessly shot and trapped as they pass over Europe and Africa.

The autumn migration is larger than the spring migration as it includes the current year's youngsters. Many aspects of migration are mysterious. As their parents migrate earlier, young cuckoos make their first journey to Africa alone, guided only by genetic information. Bar-headed geese withstand oxygen depleted altitudes by flying over Mount Everest.

Relatives of gulls, swallow-winged Arctic Terns, travel further and experience more daylight than any other bird or animal. After breeding in the arctic summer, some travel to the south pole where they can replenish energy on fish stocks during the Antarctic's eight-month summer of perpetual daylight, before making their return trip, having circled the globe a distance of 44,000 miles.

Birds are excellent weather forecasters and can sense changes in biometric pressure. They will wait for ideal weather conditions, periods of high pressure with clear skies and light winds. Migration pre-dates all human civilisations, and has mystified man for centuries. Most of the mass exodus is largely unseen, occurring at night and at high altitude, birds navigating by the moon and stars. By day they're guided by the sun's position using landmarks and tracing rivers and coastal lines. Some birds can view or sense the planet's magnetic field like a map's grid reference. Bird migration was incomprehensible to our ancestors. British Birds like the nightingale, swallow and swift. spend half their year on a part of the globe our ancestors didn't even know existed. Until the late 18th century, it was believed birds hibernated in caves, or in the case of swallows, in mud at the bottom of ponds. Other migratory birds were thought to transform into other species, the Sparrow hawk was believed to be the winter version of the cuckoo.

Birds store the same amount of fat they would require to hibernate, but billions of birds worldwide, 20% of the 10,000 thousand known species, embark on a risky global journey instead. For many, it includes crossing a thousand miles of the Sahara Desert to sub-Saharan Africa, a popular winter home for many British birds. Here subsistence hunting and agriculture is the livelihood for the majority of the population, set to double in the next thirty years. Globally, natural areas are swallowed up by urbanisation, a dozen wars rage in Africa alone, and pollution on land and in the oceans increases. But twice-yearly, birds migrate, some making epic journeys like their ancestors have done since time immemorial.