Abstract

Every spring, long-distance Palaearctic migrants return to Europe from their sub-Saharan wintering grounds after having crossed two large geographical barriers in near succession, the Sahara desert and the Mediterranean Sea. This journey is particularly demanding at this time of year because birds need to reach their breeding grounds as soon as possible to establish territories and find mates.

Spring migration in the western Mediterranean and NW Africa: results from 16 years of the Piccole Isole project presents the main findings from a network of ringing stations that were in operation between 1992 and 2007 in Spain and Morocco. This network provided the first opportunity to simultaneously study spring bird migration right across the Mediterranean basin. Migrating birds were studied both in their areas of origin (NW Africa) and also in the areas where they stopped either during the sea crossing (Mediterranean islands) or while following less energetically demanding continental routes (coastal Spain).

The work is essentially based on the results obtained for 30 species, all of which are dealt with extensively in the species accounts that make up the bulk of this monograph. These species include 26 trans-Saharan migrants (all bar three passerines), two species that winter north of the Sahara (Song Thrush and Robin) and two with mixed migratory patterns (Blackcap and Chiffchaff).

The findings show that site-specific habitat and geographic characteristics should be taken into account when studying stopover behaviour and body condition of migrants on arrival. However, some common patterns are evident. Refuelling rates and stopover duration are usually highest in NW Africa, where birds regain a significant portion of the energy reserves lost while crossing the Sahara. Once in Europe, birds migrating through continental areas usually move by means of short flights and brief stopovers during which they optimise fuel loads. However, birds passing through the islands of the W Mediterranean are exposed to much more energetically demanding non-stop flights and, except when taking advantage of the few available wetlands, have fewer opportunities to refuel successfully. Despite these difficulties, a greater proportion of long-distance migrants passing through the W Mediterranean move directly across the sea in spring than in autumn; thereby choosing the shorter, more direct and faster route.