

Non-breeding distributions of passerine migrant birds inferred from ring recoveries

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The non-breeding distribution of most Palearctic bird migrants is rather poorly known, especially for species wintering in Africa. Several sources can produce useful information on these distributions, including pure observations, ring recoveries, satellite tracking and to a lesser extent genetic methods and analysis of stable isotopes. Most of the distributional information is based on pure observations that do not provide information on connectivity and rarely can give quantitative information. Still, the use of observations can be extended with e.g. niche modelling. Ring recoveries provide a vast database on the occurrence of birds, but the recovery distribution is heavily biased by regional differences in recovery probabilities. Thus, in many species ring recoveries only allow us to say that for example the majority winter south of Sahara with an unknown proportion wintering north of Sahara. Satellite tracking would be an obvious solution, but due to the weight of these transmitters their use is restricted to the heavier species. Here I present the results from a study aiming to estimate the recovery probabilities for different areas and thereby improving our estimates of how large a proportion of birds is wintering in different areas, e.g. north or south of the Sahara. In Blackcaps, 64 % of those migrating through Denmark were estimated to winter south of the Sahara, whereas all Thrush nightingales were estimated to winter south of the Sahara but no European robins. Such estimates can be used to follow possible changes in proportions of individuals wintering in these areas resulting from a change in climatic conditions.