POPULATION ECOLOGY OF ROSEATE TERNS *STERNA DOUGALLII* IN NW EUROPE

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Numbers of breeding Roseate Terns in NW Europe declined precipitously during the 1970s and staged a partial recovery since the early 1990s, but the reasons for this are poorly understood. We analysed capture-mark-resighting data from three main colonies (that host over 85% of the total breeding pairs in the metapopulation) to estimate age-specific survival, return and movement rates from 1989 to 2007 using multi-state models. We use these estimates, in conjunction with productivity estimates, to parameterise a retrospective population model that assesses the changes in demography that would be required to cause the observed population trends. Scenarios are based on observed changes in loss of a key breeding island and variation in effort-corrected sardine landings in the Ghanaian wintering grounds. We discuss the implications of our findings for future management of breeding habitat and Ghanaian fish stocks.