Dispersion dynamics of breeding Mute Swans Cygnus olor in Northwest Germany

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Since 1943 the Mute Swan has spread over large areas in Northwest Germany, most rapidly from about 1964 to around 1972. However, local numbers of breeding birds remain small, and habitats which appear suitable are often vacant. The mechanism for the regulation of abundance and dispersion is obviously through the annual recruitment rate in relation to the stability of established occurrences.

As the annual recruitment per unit area is a Poisson variate and the fate of established breeders follows the binomial distribution, spatial allocation of nesting Mute Swans may reasonably be considered as a random process.

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