## Swift Population Size Protocol in the Netherlands Rick Wortelboer<sup>1</sup>, Maja Roodbergen<sup>2</sup>, Rob Vogel<sup>2</sup> & Jan Schoppers<sup>2</sup> <sup>1</sup> Arcadis, Den Bosch, the Netherlands <sup>2</sup> Sovon, Nijmegen, the Netherlands

A Swift monitoring protocol was designed, commissioned by the Dutch government, for the estimation of the size of the breeding population of the Common Swift in urban areas. The aim of the protocol was three-fold: 1. Localization of colonies; 2. Estimation of breeding population size; and 3. Characterization of nesting places. The protocol gives directions for the types of Swift behaviour to be distinguished (e.g. nesting behaviour, high-speed screaming flights, intermittent foraging flights and synchronized assembling flights), the type of monitoring needed, and the weather conditions that are favourable for Swift monitoring. The protocol includes a method for estimating the Swift breeding population. The difference with traditional nest counting is that all Swift observations are included into the calculation method, number of birds in flights included, taking into account the development of the Swift population through the season. Here we present the method, compare the results for areas where Swift nest monitoring has taken place, and discuss the use of the method in establishing the population size in larger areas.