

Sooty Falcon breeding population survey protocol¹

1. Main prerequisites

- 1.1 Use GIS tools for location, study area and distance measurements;
- 1.2 Visit historical sites first (due to nesting site philopatry);
- 1.3. Base other areas' surveys on:
 - 1.3.1 Unverified information from the public;
 - 1.3.2 Nesting habitat suitability;
 - 1.3.3 Use of Species Distribution Model algorithms;
- 1.4. Experienced observers to conduct surveys using binoculars and spotting scopes.

2. Main field procedure (mainland breeding areas and islands)

Mainland and islands

- 2.1 Observations to be made during mid-morning and mid- to late afternoon;
- 2.2 Observations to be made from August to October (variable depending on local phenology);
- 2.3 Search for 2-3 hours;
- 2.4 Seek signs of nesting;
- 2.5 Identify, at a minimum, the location of occupied nesting sites. An occupied nesting site is one where, at least, a single Sooty Falcon has been observed displaying behaviours deemed to be consistent with territory occupancy:
 - 2.6.1 Attendance at a site of suitable habitat;
 - 2.6.2 Territorial defence behavioural displays;
 - 2.6.3 Existence of a presumed mate;
 - 2.6.4 Existence of eggs, nestlings or fledglings;
- 2.7 Record the number of individuals seen and their age/sex;

Island-specific

- 2.8 Undertake a reconnaissance trip around the breeding islands (landing not necessary) to estimate the numbers of birds and potential pairs present across the entire archipelago;
- 2.9 Undertake a second, more detailed visit when pair bonding is complete to identify and qualify the numbers of breeding pairs and the location of nest sites being used. Potential nest sites suitable for chick ringing can also be identified;

2.10 Undertake an intensive final seasonal visit to collect, collate and gather additional observational data. This should include visiting locations known to contain inaccessible nests.

3. Constraints

It is not always possible to directly access individual nests. In such cases, confirmation of breeding has to rely on or be based on observational data, primarily on the presence and behaviour of a pair of birds around an assumed nesting site. To minimise uncertainty, additional observation data may need to be gathered across the entire breeding period.

¹ Based on: Goren M, Perlman Y, McGrady MJ (2023) Apparent population decline of Sooty Falcon (*Falco concolor*) in Israel, 2011 – 2014. *Sandgrouse* 45: 84-93; and King pers. comm. (2023). This document is also available as Annex 4 in the [International Single Species Action Plan for the Sooty Falcon \(2024-2036\)](#)