

SALUGA AND GHAZAL RINGING STATION – A NEW RINGING STATION IN EGYPT

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ABSTRACT

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On 28 August 2003 under the auspices of the SE European Bird Migration Network (SEEN) a new Egyptian Ringing Station – Saluga and Ghazal began to operate. The paper provides information about the location of the station, its habitat, methods of work and species composition of caught birds.

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INTRODUCTION

The Saluga and Ghazal Ringing Station was established to study performance of passerine birds on their migration route from northern breeding areas to central African winter-quarters. The Nile Valley is one of the two most important places of concentrations of birds migrating along this route (Alerstam 1990, Berthold 1993). However, small night migrants can cross in a non-stop flight many hundreds kilometres (Alerstam 1990, Berthold 1993) and the importance of this valley for certain species and even for particular populations can differ depending on their migration strategy. Our knowledge on this issue is limited and we hope that studies conducted in the region of Aswan provide new data crucial for understanding mechanisms of long-distance migration.

The Saluga and Ghazal Ringing Station initiated its operating on 28 August 2003 under the auspices of SE European Bird Migration Network (SEEN). This paper is aimed at providing information about the location of the station, its habitat,

methods of work and species composition of the birds caught. In addition, we would like to announce new interesting research problems found in the data collected in the first six weeks of the station's work.

STUDY AREA AND METHODS

The Saluga and Ghazel Ringing Station (24°04'N, 32°52'E) is located on the islands Saluga and Ghazel on the Nile, within the First Cataract Islands Protected Area. The Protected Area includes several tens of greater and smaller rocky islands situated between the Old Aswan Dam and the city of Aswan (see Plate after p. 97). A part of these islands is used for farming (plantations of date palm, mango, banana trees, hibiscus *etc.*), others are covered by vegetation of natural character. The Ringing Station is located on two small islands, not inhabited by people and closed for tourism in time of work. Their habitat of savannah character consists of a mixture of grasslands, rocky and stony areas, sandbars and thick bushes with single low trees – consisting of four acacia species (*Acacia albida*, *A. seyal*, *A. raddiana*, *A. nilotica*), Tamarisk *Tamarix nilotica*, Common Sesban *Sesbania sesban*, Henna *Lawsonia inermis*, Arabian Jujube *Ziziphus spina-christi*, and Climber *Leptadenia heterophylla*. Catchaw Mimosa *Mimosa pigra* and willow *Salix subserrata* occur in more humid habi-

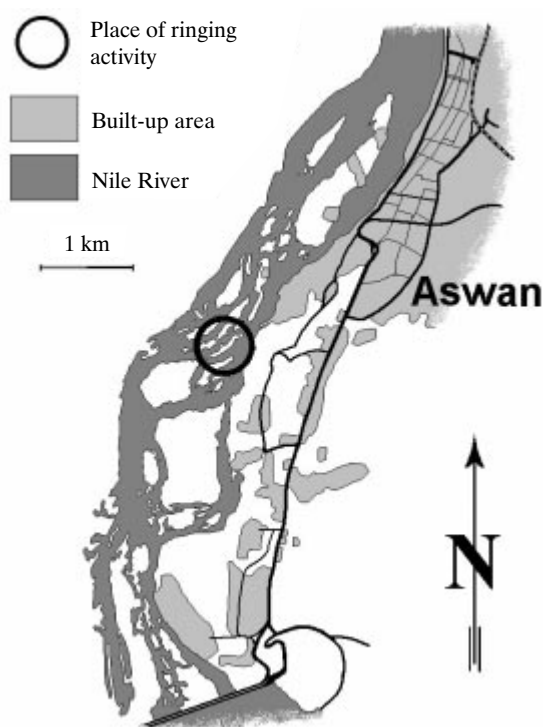


Fig. 1. Localisation of the Saluga and Ghazel Station

tat. In places where rocks do not bound directly with the river the islands are surrounded by strips of reed or patches of the Snake Root (*Polygonum senegalense*).

Birds were caught in ornithological mist-nets (in the first season 13 mist-nets 7 m long and 19 mist-nets 12 m long were used). Due to high temperatures, catching effort was suspended between 11 *a.m.* and 4 *p.m.* The standard SEEN methods of work were used, including as follows: (1) identification of species, ageing, sexing (if possible) and ringing; (2) taking measurements of maximum-chord wing length, tail length, wing formula (Busse 2000); (3) weighing on electronic balance (to the nearest 0.1 g), (4) assessment of fat load according to the 9-score scale (Busse 2000); (5) description of moult of remiges and rectrices; (6) testing directional preferences of migrants in Busse's cage (Busse 1995, 2000). For certain species additional parameters were noted, *e.g.* measurements of the notch on the second primary of the Reed Warbler *Acrocephalus scirpaceus* and the Marsh Warbler *Acrocephalus palustris*.

RESULTS

The ringing activity (ringing, measurements, experiments showing directional preferences of migrants) was carried out in two separate periods (28 August – 11 September 2003 and 2–27 October 2003). During this time 737 individuals from 42 bird species, including 521 migrants from 33 species were caught (Table 1). Nineteen of caught species have never been noted in the First Cataract Islands Protected Area before. On 7 September 2003 a Reed Warbler ringed in Hungary (ring no: BUDAPEST A131385) was caught. Alongside ringing the data on directional preferences of 369 birds were collected.

DISCUSSION

Undertaking the fieldwork we expected very high migration intensity of small passerines, in particular from *Sylvia*, *Acrocephalus* and *Phylloscopus* genera. Such assumption was based on observations from the station Eilat (southern Israel), where thousands of small passerines were ringed (Morgan *et al.* 1997) every year. Surprisingly, we have recorded relatively low intensity of migration (on an average 13.4 migrants per day were caught). Only for the three most numerous species – Lesser Whitethroat *Sylvia curruca*, Masked Shrike *Lanius nubicus* and Reed Warbler – the obtained numbers allow for any analysis of migration parameters. Covering the whole season by the study would enable us to collect suitable material for two or three further species. However, we can list over ten bird species – such as Garden Warbler *Sylvia borin*, Blackcap *Sylvia atricapilla*, Sardinian Warbler *Sylvia melanocephala*, Willow Warbler *Phylloscopus trochilus* or Marsh Warbler – which we have not stated (or recorded only single individuals) in the Saluga and Ghazal Ringing Station, but which are regularly ringed in Eilat (Morgan *et al.* 1997) and they

Table 1
Numbers of birds caught in autumn 2003. Note that some birds could not be ringed either due to the lack of proper rings or other circumstances.

	Caught	Ringed
<i>Sylvia curruca</i>	154	153
<i>Lanius nubicus</i>	93	91
<i>Acrocephalus scirpaceus</i>	91	90
<i>Lanius collurio</i>	42	42
<i>Hippolais pallida</i>	26	25
<i>Phoenicurus phoenicurus</i>	19	19
<i>Luscinia svecica</i>	13	13
<i>Muscicapa striata</i>	12	12
<i>Hirundo rustica rustica</i>	9	9
<i>Alcedo atthis</i>	9	9
<i>Luscinia luscinia</i>	6	6
<i>Acrocephalus schoenobaenus</i>	6	6
<i>Sylvia melanocephala</i>	5	5
<i>Upupa epops</i>	5	5
<i>Phylloscopus trochilus</i>	4	4
<i>Caprimulgus europaeus</i>	4	4
<i>Riparia riparia</i>	3	3
<i>Locustella luscinioides</i>	3	3
<i>Luscinia megarhynchos</i>	2	2
<i>Jynx torquilla</i>	2	2
<i>Sylvia atricapilla</i>	1	1
<i>Sylvia communis</i>	1	1
<i>Sylvia hortensis</i>	1	1

	Caught	Ringed
<i>Ficedula parva</i>	1	1
<i>Acrocephalus arundinaceus</i>	1	1
<i>Acrocephalus palustris</i>	1	1
<i>Oenanthe oenanthe</i>	1	1
<i>Cercotrichas galactotes</i>	1	1
<i>Lanius senator</i>	1	1
<i>Calandrella brachydactyla</i>	1	1
<i>Merops apiaster</i>	1	1
<i>Otus scops</i>	1	1
<i>Tringa ochropus</i>	1	1
Total number of migrants	521	516

	Caught	Ringed
<i>Hirundo rustica savignii</i>	60	60
<i>Passer domesticus</i>	59	59
<i>Pycnonotus barbatus</i>	24	24
<i>Acrocephalus stentoreus</i>	24	23
<i>Merops orientalis</i>	23	22
<i>Anthreptes metallicus</i>	11	11
<i>Streptopelia senegalensis</i>	7	7
<i>Amandava amandava</i>	6	6
<i>Ceryle rudis</i>	1	0
<i>Butorides striatus</i>	1	0
Total number of residents	216	212

head further south towards Central Africa. All birds that use this route have to pass along the Nile Valley or the coast of the Red Sea (but sea-shore habitats do not seem to be better for stopover), or cross deserts in one long jump and stop as far as in southern Sudan and Ethiopia. In this context the list of absent species seems to be not less interesting than the list of present ones, as it points out differences in the migratory strategies of certain species (which are poorly known at this stage). Comparison of numbers of the Lesser Whitethroat (8% of all caught *Sylvia* species in Eilat, 95% – in Saluga and Ghazal), the Blackcap (51% and 0.6%, respectively) and the Sardinian Warbler (20% and 3%, respectively) caught in autumn 2003 give interesting ideas about the migration strategies of these species.

The very high percentage of birds older than first-year – from 23% for the Bluethroat *Luscinia svecica* to 72% for the Olivaceous Warbler *Hippolais pallida* and for the Masked Shrike – was another conspicuous phenomenon found during the preliminary study. Such a high percentage of adults have never been stated in any other station operating within the SEEN network so far – to exemplify this fact the data for Saluga and Ghazal are compared to Wadi El Rayan (Egypt) as well as to Hashimiyya and Dhleil (Jordan) Ringing Stations (Table 2). Similar phenomenon was only very shortly mentioned by Nicolaus and Pearson (1991) for a catch in vicinity of Port Sudan. These again suggests that in northern Africa birds that migrate for the first time and these on their subsequent passage present different migration strategies.

Table 2
Percent share of adults at some of the Middle East ringing stations

	Saluga and Ghazal 28 Aug.-27 Oct. 2003		Wadi El Rayan 3 Sep.-25 Oct. 2001		Dhleil 29 Aug.-26 Oct. 2002		Hashimiyya 7 Sep.-25 Oct. 2001	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
<i>H. pallida</i>	26	72.0	0	–	29	13.8	2	–
<i>L. nubicus</i>	93	71.7	0	–	22	45.5	16	37.5
<i>L. collurio</i>	42	71.4	15	66.7	26	42.3	28	10.7
<i>A. scirpaceus</i>	91	51.7	205	19.5	18	16.7	12	8.3
<i>S. curruca</i>	154	45.8	7	–	136	22.8	88	19.3

The pilot season of investigations within the First Cataract Islands Protected Area raised many new questions and strengthened us in our conviction that studies on birds in the southern Egypt are crucial for understanding the mechanisms of trans-Saharan migration of small passerines. Therefore, we plan to extend the catching effort in the Saluga and Ghazal Ringing Station over the whole period of spring and autumn migration, and to carry on a simultaneous comparative study in the Wadi Allaqi Protected Area (*ca* 150 km to the south) as well as at the Red-Sea coast.

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