# DEVELOPMENT OF THE PROJECT "TRINGA GLAREOLA 2000"

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#### INTRODUCTION

The international research programme "Tringa glareola 2000", concentrating on the investigations on migration of Wood Sandpiper through Europe, has remarkably developed since its establishment in 1997. The programme was organised and is conducted by the Waterbird Research Group KULING from Poland, and affiliated by the international Wader Study Group. At the end of 1998, over 30 sites from 21 countries (14 in Europe, 6 - in Africa and 1 in Asia) joined the programme, and further groups or persons declared their interest in it (Fig. 1).

# METHODS AND RESULTS

The main objective of the programme is to discover the migration routes of the Wood Sandpiper and to study such phenomena connected with its passage as e.g. migration phenology and timing, migration speed and energetics. The methods applied are ringing, colour marking, dying, counts and observations. The aims and methodics of the project were presented in detail in the papers listed below.

#### RINGING

Amongst the sites working within the programme, 21 are ringing stations, which were working in the past or continue the catching effort; also one new ringing station – in the Danube Delta (Romania) will be established in 1999. The most important material for investigating Wood Sandpiper flyways are recoveries provided by these ringing stations. However, as the recovery rate of this species is rather low, colour ringing has been introduced as a supportive method. The first results of colour marking, presented in Table 1, seem to point out the effectiveness of this method in comparison with the conventional one. For example, birds colour-marked at the Gulf of Gdańsk between spring 1997 and spring 1998 already gave the recovery rate of 1.2%, while this value for the traditional marking with metal rings at this site in autumns 1984-1997 was 0.6%. Although these results are not directly comparable, they give some orientation about the possible effectiveness of colour ringing in this species. The distribution of records of colour-ringed Wood Sandpipers, presented at Figure 2, confirm the results given by recoveries of metal-ringed birds, however, they already brought some new information. The most meaningful in terms of cooperation within the project was the direct spring record of the bird marked in



Fig. 1. Sites participating in the project "Tringa glareola 2000" – the stage at the end of 1998. Filled circles – sites actively participating in the project, open circles – stations of not confirmed participation.

the southernmost European site of the programme (Castel Volturno in Italy) and noted in Finland in the region of its northernmost station (Raasio Wader Ringing Station). The majority of obtained recoveries refer to Wood Sandpipers colour-marked by WRG KULING at the Gulf of Gdańsk. The results concerning Wood Sandpipers ringed there gave some new information about the migration of this species. Until now, there were no recoveries from the spring migration of Wood Sandpiper ringed in this region. The three records of colour-marked birds from the Central Germany clearly indicate that the birds occurring in autumn at the Gulf of Gdańsk coast fly back to the breeding grounds over this area.

Alongside the ringing, also the biometric material is being collected. The rough estimate of the number of individuals measured until now give the data set about 8000, including the data from southern Africa, which will be worked out within the project.

Table 1
The number of Wood Sandpipers colour-marked between autumn 1997 and spring 1998
and of records of these birds

Site name, country	No. of marked birds			No. of records
spring 1997				
Gulf of Gdańsk (Reda mouth+Drewnica), Poland	12	160		-
autumn 1997				
Reda mouth, Poland		169		5
Raasio, Finland	1	74	323	
Castel Volturno, Italy		2	1	-
Tikko, Cameroon		2	1	
spring 1998			1	
Reda mouth, Poland	S. Inc.	62	3	
Castel Volturno, Italy	~ <u>@</u> 94	42	5	1
Total		511		6
Recovery rate	1,17%			

### COUNTS

The material from frequent regular counts from 21 sites will be provided for the project purposes (Fig. 3). This data refer to the research conducted in the past, as well as to the ongoing one. This would provide the basis for comparison of the migration dynamics between the stations and a possible tracing of the passage of migratory groups. As the majority of sites where counts are conducted are at the same time ringing stations, combining the results of both methods can give such an interesting pattern as that presented for the Reda mouth (Gulf of Gdańsk) at Figure 4.

# DYING

The attempt to apply this method was done by the team of the Raasio Waders Ringing Station in Finland. Out of 37 individuals marked with picric acid (youngs) or rodamine b (adults), one bird was probably seen a few days later at the Finnish coast. The use of this method was not continued.

# OBSERVATIONS

The programme was widely announced to ornithologist and birdwatchers in many countries. Thanks to that, the records of colour-marked birds presented above were received. Many observers also provided their data from irregular, temporary counts or single controls of sites of Wood Sandpiper concentrations. This material can be used for establishment of regular counts or even a new ringing station, when reported by a group of en-



Fig. 2. Records of Wood Sandpipers colour-marked within the project. Stations of ringing of recovered birds: CV – Castel Volturno, RM – the Reda mouth; open circles – autumn direct recoveries of birds ringed at the Reda mouth; filled circles – spring recoveries of birds ringed at the Reda mouth; arrow – direct spring recovery of bird ringed in Castel Volturno.

thusiasts, or can be a good material for the evaluation of importance of different sites for Wood Sandpipers and other waders stopping-over during the migration.

## CURRENT ORGANISATIONAL STATUS

The research is conducted by each of the stations and observers at their own cost. Ringing is done mainly within the activity of existing wader ringing stations, however a few are organised with special regard to Wood Sandpiper, which is a promising object of investigations inland. The largest problem is the cost of colour rings. Until now the birds

86



Fig. 3. Sites of regular counts within the project "Tringa glareola 2000".

were colour-marked only in these stations which could afford buying colour rings, while all the currently working ringing stations were ready to start it. On the other hand, a participation of the station in an international research programme under the Wader Study Group already works as an argument in fund-raising for the running costs of the stations.

These, as well as methodological, problems were addressed at the first meeting of the programme participants – Workshop on the Project "Tringa glareola 2000" organised by WRG KULING and held on 22nd Nov. in Gdynia (Poland). During the workshop, a standard set of measurements that should be taken on Wood Sandpipers was established. Also, as the result of field experience from the previous seasons, the fat score scale and the wear of primaries and secondaries were proposed to be introduced to station routines. Before the spring season, a manual of measurements to use for Wood Sandpiper will be prepared. The participants have also established such topic groups as: migration dynamics, recove-



Fig. 4. Records of Wood Sandpipers colour-ringed at the Reda mouth in autumn 1997, placed witin the pentades of ringing (middle date of pentade given at the figure), with the background of the migration dynamics drawn on the basis of counts. Bars – pentade means, line – pentade maxima, open circles – autumn direct recoveries, filled circles – spring recoveries (the symols correspond to those at Fig. 2).

ries, biometrics, moult, refuelling strategy, which expressed individual interests in work on particular problems connected with the migration of the species.

#### THE PERSPECTIVES OF THE PROJECT

At this moment, it can be clearly seen that despite plans of closing the project in year 2000, it will be necessary to prolong it for one or two seasons. This was caused by the fact that year 1997 was rather an organisational one. The materials from 1998 are promising and at present a network of cooperating stations is able to conduct a directed research as well as established network of observers will carry out coordinated counts. At the same time, the studies from the previous years were reviewed and we realised the large gaps in knowledge on the species in some countries of the programme.

After closing the fieldwork of the project, a publication of its results is planned. Willingly, it would be a special issue with papers of project participants and invited contributors, presenting the common work of the established topic groups of specialists.

The project is not only directed to one particular species but one of its objectives is also to establish a network of cooperating stations supporting each other with experience. This was clearly addressed at the workshop that after finishing the studies on that species, having such a good-working team we can work on migration of other waders through the area covered by the network.

More information about the project can be found in the papers listed below and at the Web Sites: at the German Bird Net (in German), in the home page of the European Colour-ring Birding – http://www.ping.be/cr-birding/cr-birding.htm (in English), and at the WRG KULING home page – http://free.ngo.pl/kuling/(in Polish, soon in English).

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#### APPENDIX

The list of papers and notes on the project:

Remisiewicz M. 1997. Project "Tringa glareola 2000" – spring and autumn migration of Wood Sandpiper through Europe. Wader Study Group Bull. 84: 21-22.

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