BIRD BLOOD PARASITE PROJECT: REPORT FOR 1993

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This is the first report on the bird blood parasite project which was initiated early in 1993 involving many of the ringers in southern Africa. I hope that we can continue the success of the past year and that there will be a report of this kind annually. This report covers the calendar year of 1993 and all material received during this period was taken into account.

The response to the initial article on bird blood parasites (Earlé & Bennett 1991) was poor with only two ringers indicating that they would be willing to participate. Enthusiastically, parcels with all the equipment needed were made up and sent off. One of these persons has not been heard of since, but at least the other one is a regular. Clearly, I needed another approach.

Over blueberry pie and tea at a certain locality in Glencairn overlooking Simon's Town and with the help of Terry Oatley, we decided to try a personal approach. In all, letters were sent to 52 ringers asking them to take blood smears from the birds that they handle. Of these, 41 replied and we have despatched parcels of equipment to these ringers. At present, of the 41 ringers who replied to the original letter (and received slides and equipment) 22 have supplied blood smears for the collection. Luckily we had some 'regulars' who made smears before 1993 and a few new ringers who came aboard during the year on their own initiative. In all, 38 persons or groups supplied smears during 1993 of whom four were not ringers (Table 1).

Table 1

Ringer	No. of smears
Darrell Abernethy	93
Mark Anderson & Julius Koen	498
Phoebe Barnard	6
Rod Braby	60
Guy Bradley	75
J-J Brossy	537
John Bunning	20
Japie Claassen	106
Sam de Beer	607
Dawie de Swardt	121
Darryl Deetlefs	27
Roy Earlé	647
Douw Grobler, Whitefield & Oliver	38
Dale Hanmer, JM Hanmer & W Chadder	1 020
Dave Hartley	17
Kotie Herholdt	48
Marc Herremans	736
Claudia Holgate	34
David Johnson	221
Alan Kemp & G Benn	18
Rob Little	268
Geoff Lockwood	345
Colin Martin	21
Stuart McLean	279
John Moorcroft	29
Walter Neser	197
Terry Oatley	165
David Pepler	18
Dave Philip	25
Monika Poferl	2 107
Kobie Raijmakers	40
Shonie Raijmakers	53
Michael Raum	16
Susan Schoeman	100
Albert Schultz	42
Alwyn & Sharon Smit	54
Charl Steyn	60
George Underhill	2 557
Total	11 305

Up to 31 December 1993 a total of 11 305 smears were received, or 209 smears each week, on average. The different batches of smears received are lined up on a long laboratory bench to wait their turn, firstly to check if they all arrived, and secondly, if they arrived intact. There are very few broken slides and only batches that are not packed correctly, as a block of glass, are sometimes lost.

The second step is to take the slides in batches of 60 (the maximum that can be stained at once) to fix and stain the smears. If everything goes well, each batch of 60 smears takes at least 75 minutes to stain but more often about 90 minutes. The smears are allowed to dry and together with the appropriate data sheets are then stacked to wait their turn for an unique collection number. Identification of the parasites is the next step and is either done in the Department of Veterinary Tropical Diseases or sent to the International Reference Centre for Avian Haematozoa (IRCAH) at the Memorial University of Newfoundland in St John's, Canada. All slides eventually end up at IRCAH where they are permanently stored. The biggest problems in this operation are (1) ringers who do not supply data sheets but write all the data on the frosted end of the slide or (2) ringers who supply sheets but use the common names of the birds. In both of the above cases the processing of the smears takes two to three times longer than normal as new data sheets have to be written.

The greatest excitement, from a parasitological point of view, is the large sample sizes that some ringers have supplied on a regular basis. To be able to analyse the data meaningfully it is important to get fair samples over a period of time in order to relate the parasite loads to climatological factors of the environment. Even at ringing sites which are only a few kilometres apart the parasite species and parasite loads can and do differ substantially purely as a result of the environment being (un)suitable for a specific vector locally.

A large number of the Cape specials such as Cape Bulbul *Pycnonotus capensis* and Cape Sugarbird *Promerops cafer* are now well represented in the collection, largely through the efforts of George Underhill. Further north, Monika Poferl and Sam de Beer supplied large samples of the common birds in the Western Transvaal showing very definite seasonal patterns of parasite loads. Different species of *Trypanosoma*, usually an uncommon parasite, are a regular and fairly common parasite in the smears from Marc Herremans in Botswana and I now believe that there is not a single Blue Waxbill *Uraeginthus angolensis* in the whole of Botswana that has not had a smear taken from it by Marc. Dale Hanmer and her companions in Zimbabwe supplied smears from a number of species not common or not occurring further south such as the Blackeared Canary *Serinus mennelli* and the Yellow White-eye *Zosterops senegalensis* to name only two.

The excitement was also great when a new species of *Haemoproteus* was discovered in the smear of a Spotted Dikkop *Burhinus capensis* from a road kill (these can be useful too) in the Kruger National Park and when parasites not previously recorded in this part of the world were seen. Two of these were *Haemoproteus brachiatus* seen in the same month in a Rock Kestrel *Falco tinnunculus* (John Moorcroft) and Lesser Kestrel *Falco naumanni* (David Pepler) and *Haemoproteus enucleator* from a Pygmy Kingfisher *Ispidina picta* (Walter Neser) from Zululand. Another unique area seems to be Himeville (Stuart McLean) in Natal where several unusual parasites have been found such as *Haemoproteus fallisi* in two Cape Robins *Cossypha caffra*, a parasite which is very rare in the old world and *Trypanosoma everetti* which has not been recorded in the Hoopoe *Upupa epops* before. Potential new species of parasites

are *Haemoproteus* spp. from a Fiscal Shrike *Lanius collaris* and a Redbilled Hornbill *Tockus erythrorhynchus*; *Hepatozoon* spp. from the Scalyfeathered Finch *Sporopipes squamifrons* and the Bronze Mannikin *Spermestes cucullatus* (Dale Hanmer and Susan Schoeman); and *Leucocytozoon* spp from a Willow Warbler *Phylloscopus trochillus* and the Redwinged Starling *Onychognathus morio*. These are only a few examples of the type of parasite data collected during 1993.

The disappointments of the year were the **very** small numbers of smears received from seabirds and waders and the even smaller numbers received from our migratory birds such as the European Swallows *Hirundo rustica* which were handled in very large numbers. Not a single smear was made of any of the crow, egret or ibis species and only one smear made from a duck in the whole of southern Africa! Any takers for these groups? Another disappointment is the ringers who showed interest and have received slides and other equipment and have done nothing about it. At present the cost of a packet of 50 slides is close on R6,00.

We looked upon the first year of the bird blood parasite project as the period in which we would try to get ringers to participate and generally get the operation to run fairly smoothly. That we have achieved.

During the second year we would like to keep the momentum going and decide what the priorities should be. We will also concentrate on some specific projects as was mentioned in a previous article (Earlé 1993). To this end, we may approach individual ringers with targets for numbers of smears per species per month.

Results of the parasite loads and interesting parasites from different bird species will be the subject of the next report which will be done as soon as all the smears received during 1993 have been scanned, which will take several months.

REFERENCES

EARLÉ, R.A. & BENNETT, G.F. 1991. Avian blood parasites – a request for African material. *Safring News* 20:3-8.

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THE BOTSWANA SWALLOW PROJECT: DECEMBER 1993 to JANUARY 1994

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The second expedition of the Botswana Swallow Project took place from 27 December 1993 to 27 January 1994. Our team of four visited the same three swallow roosts as last year: Gaborone Dam, Shashe Dam and a location at the Boteti River about 30 km southeast of Maun (see also pp.20-21, and see *Safring News* 22(1):27-29 for the report on 1992-1993 expedition).

At Gaborone Dam we only mistnetted for one evening in a rather small reedbed in the old riverbed near the dam. There was a roost of about 50 000 to 100 000 swallows, probably nearly the capacity of the roost. We trapped and ringed 384 swallows, including one juvenile bird with a British ring.

At Shashe Dam we mistnetted for two evenings and ringed 166 swallows. The number of swallows was rather small and we did not succeed in finding the exact