RESEARCH NOTE

SOME PROTOZOAN PARASITES OF WILD BIRDS FROM THE VICINITY OF ONDERSTEPOORT

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ABSTRACT

THOMAS, SHAN E. & DOBSON, LYNNE D., 1975. Some protozoan parasites of wild birds from the vicinity of Onderstepoort. *Onderstepoort J. vet. Res.* 42 (1), 67–68 .(1975). The protozoan parasites of wild birds from the vicinity of Onderstepoort are recorded. New host records for

the Republic of South Africa are: Haemoproteus in Threskiornis aethiopicus, Francolinus swainsonii, Columba guinea and Streptopelia senegalensis; Leucocytozoon in Anas erythrorhyncha, Netta erythrophthalma, C. guinea and Passer domesticus and Plasmodium in Numida meleagris.

In 1971/72 a total of 74 wild birds of 13 species collected at or near the Onderstepoort Veterinary Research Institute was examined for protozoan parasites. Blood, liver and bone-marrow smears were stained with Giemsa and subsequently examined for such parasites. In addition, cardiac blood and bone-marrow were seeded onto saline-neopeptone-blood medium (Diamond & Herman, 1954) and nutrient NNN medium (Baker, 1966), incubated at 37 °C and examined on Days 3, 10 and 14.

Forty-nine birds were infected with protozoan parasites and 2 with microfilaria. The results are summarized in Table 1.

Leucocytozoon was present in 8 and Haemoproteus in 7 species of birds. As only erythrocytic stages, i.e. gametocytes, were found and the parasitaemias were of a low level, no attempts were made to identify the species of Haemoproteus and Leucocytozoon. Since it is difficult to distinguish morphologically between gametocytes of Plasmodium and Haemoproteus it is possible that some gametocytes of Plasmodium were erroneously identified as Haemoproteus. A very small number of trophozoites and a schizont of an unidentified *Plasmodium* was found in *Numida meleagris*.

On Day 14 trypanosomes were present in 1 of the 2 bone-marrow cultures on nutrient NNN medium from 1 *Francolinus swainsonii*. The parasites were highly motile and were 21 μ m in length.

Leucocytozoon has previously been recorded from F. swainsonii (Oosthuizen & Markus, 1967 a, b), N. meleagris (Oosthuizen & Markus, 1967 a, c), Streptopelia senegalensis (Oosthuizen & Markus, 1968) and Passer melanurus (Fantham & Robertson, 1927), and Haemoproteus from N. meleagris (Oosthuizen & Markus, 1967 b, c). According to Oosthuizen & Markus (1967 b), Enigk found both Leucocytozoon and Haemoproteus in N. meleagris. Trypanosoma numidae was recorded from N. meleagris (Oosthuizen & Markus, 1967 b).

New host records for the Republic of South Africa listed in this publication are Haemoproteus in Threskiornis aethiopicus, F. swainsonii, Columba guinea and Streptopelia senegalensis, Leucocytozoon in Anas erythrorhyncha, Netta erythrophthalma, C. guinea and Passer domesticus and Plasmodium in N. meleagris.

Family	Bird Species	Number exa- mined	Parasites found				
			L	L & H	L & P	н	М
Ardeidae	Ardeola ibis (Cattle heron)	3	_	-		-	-
Ciconidae	Ciconia abdimii (White-bellied stork)	1	-			-	
hreskiornithidae	Threskiornis aethiopicus (Sacred ibis)	3	-	-		1	-
natidae	Anas erythrorhyncha (Red-billed teal)	6	1	_	-	1	1
hasianidae	Netta erythrophthalma (Southern pochard) Francolinus swainsonii (Swainson's francolin)	14	8	2			1
umididae	Numida meleagris (Helmeted guinea fowl)	24	4	11	1	6	
allidae	Gallinula chloropus (Moorhen)	1	-			_	-
olumbidae	Columba guinea (Rock pigeon)	11	1		-	5	_
	Streptopelia senegalensis (Laughing dove)	2	-	2		-	1
popidae	Apus affinis (Little swift)	1	-			-	-
Ploceidae	Passer domesticus (House sparrow)	4	2	1	-	-	-
	Passer melanurus (Cape sparrow)	1	1	-	-		-
	Total	74	18	16	1	13	2

TABLE 1 Parasites found in blood smears

L = Leucocytozoon

H = HaemoproteusP = Plasmodium

M = Microfilaria

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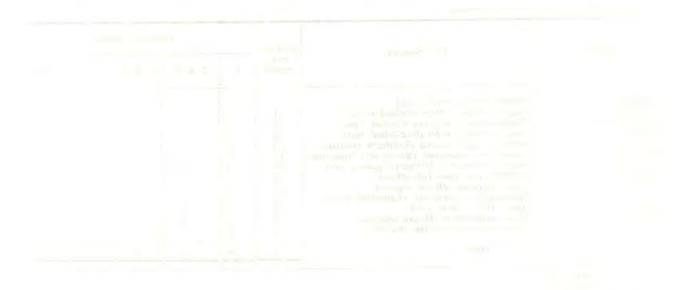
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