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## A NOTE ON THE IDENTIFICATION OF *SKRJABINEMA OVIS* (SKRJABIN, 1915) AND *TRICHOSTRONGYLUS* SPP. IN SHEEP AND GOATS IN IRAN (\*)

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This paper reports the occurrence of *Skrjabinema ovis* and *Trichostrongylus* spp. not previously identified in sheep and goats in Iran. A complete list of the helminth parasites now known to exist in sheep and goats in Iran is included in the discussion.

### MATERIAL AND METHODS

In 1963, a survey was commenced to determine the incidence, distribution, seasonal variation and importance of the gastro-intestinal helminths of sheep and goats in Iran. The plan of the survey provided for total differential worm counts of sheep and goats whenever possible. For these counts, the abomasum and small intestines were examined separately, whilst the caecum, colon and rectum were treated together as the "large intestines". The contents and the scrapings from the mucosa of each organ were collected, made to a known volume, and representative samples were taken for counting.

Specimens of *Skrjabinema* spp. were recovered from the large intestines of two goats and one sheep in early examinations. Due to the method used, the precise location of this species was not determined initially. In subsequent examinations, the caecum, colon and rectum were examined separately and *Skrjabinema* spp. were found only in the caecum.

### IDENTIFICATION OF *SKRJABINEMA OVIS*

A total of 31 specimens *Skrjabinema* spp. were recovered from three goats and one sheep. They were a greyish-white colour, approximately 1 cm. long and 1 mm. wide and hence readily visible when the washed intestinal contents were

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viewed against a dark background. All of those recovered were females, despite a careful search for males which are much smaller.

*Skrjabinema* is a genus of the family Oxyuridae, distinguished by simple lips, absence of buccal cavity, a simple oesophagus with a prominent, single posterior bulb, and, in the females, a relatively long, tapering tail and the presence of eggs characteristically flattened on one side. Measurements of a number of females indicate that the species found in Iran is *Skrjabinema ovis*. Table I compares the measurements of specimens found in Iran with those noted by Skrjabin, 1915, and reproduced by Neveu-Lemaire (1936).

TABLE I  
Measurements of *Skrjabinema ovis* (females)

Morphological features	Skrjabin 1915	Present study
Length ... ..	6.8 mm.-7.64 mm.	7.4 mm.-9.2 mm.
Width ... ..	—	438 $\mu$ -481 $\mu$
Oesophagus length ... ..	540 $\mu$ -770 $\mu$	657 $\mu$
Bulb diameter ... ..	170 $\mu$ -240 $\mu$	186 $\mu$ -204 $\mu$
Tail length ... ..	900 $\mu$ -1,000 $\mu$	803 $\mu$ -846 $\mu$
Distance of vulva from anterior extremity ... ..	2.0 mm.-2.4 mm.	2.3 mm.-2.4 mm.
Dimensions of eggs ... ..	54-57 $\mu$ $\times$ 32-34 $\mu$	54-59 $\mu$ $\times$ 31-33 $\mu$

#### IDENTIFICATION OF *TRICHOSTRONGYLUS* spp.

*Trichostrongylus* spp. have been seen in most animals examined to date, the species identified being *T. axei* and *T. colubriformis*. Detailed descriptions are not included here because these species are well known.

#### DISCUSSION

The presence of *Skrjabinema ovis* in sheep and goats in Iran is not surprising. It was first found in the U.S.S.R., which borders Iran, and it has been reported also in the neighbouring countries of Turkey (Uysal, 1962) and Pakistan (Sarwar, 1960).

In the animals from which specimens were recovered, there were no pathological lesions that could be ascribed to the parasite, and it is considered that *Skrjabinema ovis* had no effect on the health of the animals.

Table 2 lists the helminth parasites now known to occur in sheep and goats in Iran. It was compiled from a paper recently prepared for publication in the «Archives de l'Institut d'Hessarek» (Razi Institute, Iran) by Dr. A. Alavi, Veterinary

College, University of Teheran, and includes species reported for the first time in the present study.

TABLE 2  
Helminth parasites identified in sheep and goats in Iran.

TREMATODA	CESTODA	NEMATODA
<i>Fasciola hepatica</i>	<i>Moniezia expansa</i>	<i>Strongyloides papillosus</i> <i>Haemonchus contortus</i>
<i>Fasciola gigantica</i>	<i>Moniezia benedeni</i>	<i>Ostertagia ostertagi</i> <i>Cooperia</i> spp.
<i>Dicrocoelium lanceolatum</i>	<i>Helicometra giardi</i>	<i>Nematodirus</i> spp. <i>Bunostomum trigonocephalum</i>
<i>Paramphistomum cervi</i>	<i>Anoplocephala centripunctata</i>	<i>Oesophagostomum venulosum</i> <i>Trichuris ovis</i>
<i>Paramphistomum orthocoelium</i>	<i>Echinococcus granulosus</i> (larval)	<i>Gongylonema pulchrum</i> <i>Dictyocaulus filaria</i>
<i>Gastrothylax crumenifer</i>	<i>Cysticercus tenuicollis</i>	<i>Muellerius</i> spp. <i>Protostrongylus rufescens</i>
<i>Cotylophoron cotylophorum</i>	<i>Cysticercus ovis</i>	<i>Cystocaulus</i> spp. <i>Skrjabinema ovis</i>
<i>Schistosoma bovis</i>	<i>Coenurus cerebralis</i>	<i>Trichostrongylus</i> spp.

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