

**A NOTE ON THE IDENTIFICATION OF STILESIA  
VITTATA (RAILLET, 1896) AND STILESIA HEPATICA  
(WOLLFHUEGEL, 1903) IN SHEEP AND  
GOATS IN IRAN**

**BY:**

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The presence of *Stilesia vittata* was noted in sheep and goats by Pande (1942), and Mudaliar (1943), in India, and in camels by, Baskakov (1924), Skrjabin (1926), Raevskaya and Badanin (1933), in Turkemenia and Kazakh, Russia.

This is the first report on the presence of *Stilesia vittata* and *Stilesia hepatica* in sheep and goats in Khorassan, Iran.

**MATERIALS AND METHODS**

During past 4 years, at Razi Regional Laboratory in Meshed, a survey was established to determine the incidence, distribution, and seasonal variation of the helminth parasites of sheep and goats, particularly in the North-East province of Iran. The survey was conducted to undertake total differential worm counts of sheep and goats whenever possible. The complete viscerals were obtained mainly from slaughter-house and some from dead animals which were submitted for diagnosis purposes.

For the worm counts, the abomasum and small intestines, liver and lungs were examined separately, whilst the saecum, colon and rectum were treated

together. The contents and the scrapings obtained from each organ were counted totally.

The stilesia species recovered in this study, was washed in physiological saline solution and fixed in 10 per cent aqueous formalin for 24 hours. For staining, Horn's Trichrome Stain Method was used as described by Noble and Noble, (1962).

## RESULTS

A total of 1802 sheep and 245 goats were tested in this investigation. The specimens of *Stilesia vittata* were recovered from duodenum and small intestine of 6 sheep and 2 goats. *Stilesia hepatica* was recovered from the liver of only one sheep.

Specimens of *Stilesia vittata* recovered from the intestine of sheep and goats in Khorassan, had the following aspects: they were a grayish white colour, in average; 22 cm. long and 1.2 mm. width, with a thin and semitransparent bodies. The strobila was narrow, thin and elongated along the central line and thicker laterally. The genital apparatus is single, the genital apertures alternate irregularly, the uterus has the form of two vesicles united by a narrow transverse duct. The paruterine organs were double. Testes were 6 to 8 in each side.

The other spp. of *Stilesia*, *St. hepatica*, was recovered from the liver of only one sheep. This liver has been crashed before obtaining *Stilesia* spp., for recovering immatures liver flucks. Because of crashing method, only a few strobils has been obtained.

The morphological aspects of recovered *Stilesia hepatica* segments from the liver and *Stilesia vittata* species obtained from the intestines of sheep and goats are summarised in table 1.

**Table 1**

Mesurments of *Stilesia vittata* and *Stilesia hepatica* found  
in sheep and goats in Khorassan, Iran.

Morphological features	<i>Stilesia vittata</i>	<i>Stilesia hepatica</i>
Total length	190 – 220 mm.	
Width	1.0 – 1.2 mm.	2.6 – 2.8 mm.
Scolex	0.5 x 0.5 mm.	
Nec	2.0 x 0.3 mm. length: 0.02 mm.	
Young segments	width: 0.50 mm. length: 0.150 mm.	0.280 mm.
Hermaphrodite segments	width: 1 – 1.2 mm.	1.5 – 2 mm.
Paruterine organ	0.20 x 0.08 mm.	
Number of testes	6–8 in each group.	9 – 11
Uterine vesicle	0.120 mm.	0.05 – 0.07 mm.

### DISCUSSION

The mesurments of some organs in recovered-*Stilesia* species, (table 1), was nearly as discribed by, Gough, (1911) and Skrjabin, (1951).

In the animals from which the specimens of *Stilesia* spp. Were recoved, no pathological lesions in the liver, duodenum and small intestines that could be ascribed to the parasites, was observed.

The presence of *Stilesia hepatica* in sheep in Iran is very surprising, because, from 2047 sheep and goats examined, only one of them has been positive for this parasite. It must be mentioned, however, that the animal was slaughtered in Meshed slaughter-house but its origin was not found, further investigation, however is recommended to clear the situation of *Stilesia hepatica* in the ruminents of Iran.

### ACKNOWLEDGEMENTS

The technical assistance of Dr. A.A. Bighdely, and Mr. S.H. Norouzi, from Razi Institu-e Regional Laboratory in Meshed are gratefully acknowledged.

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