

RESEARCH COMMUNICATION

THE PRESENCE OF THE TRICHOSTRONGYLID *TELADORSAGIA DAVTIANI* IN SHEEP IN THE SOUTH-WESTERN CAPE

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ABSTRACT

LOUW, J. P., 1988. The presence of the trichostrongylid *Teladorsagia davtiani* in sheep in the south-western Cape. *Onderstepoort Journal of Veterinary Research*, 55, 185–186 (1988)

*Teladorsagia davtiani* in sheep in the south-western Cape, is recorded in the Republic of South Africa for the first time. The literature dealing with this helminth is briefly reviewed.

According to Skrjabin, Shikhobalova & Schulz (1954) Andreeva & Satubaldin first reported *Teladorsagia davtiani* from sheep in Kazakhstan and they suggested a widespread but unnoticed distribution of this worm because it so closely resembles *Ostertagia trifurcata*. After attention was drawn to its presence in the United Kingdom, a widespread distribution of *T. davtiani* in that country was reported (Rose, 1962). Previously it was probably wrongly identified as *O. trifurcata*. This is likely to be the case also in this country. Studies on the epidemiology of helminths in sheep in the winter rainfall region of the south-western Cape has shown that *T. davtiani* is a very common parasite found together with *Ostertagia circumcincta* and *O. trifurcata* in the abomasum of sheep.

*T. davtiani* is differentiated from *O. trifurcata* on the shape and structure of the male genital cone which in the case of *O. trifurcata* has a well developed accessory bursal membrane with two supporting ribs (Fig. 1b). The genital cone of *T. davtiani* lacks an accessory bursal membrane but has a very characteristic sclerotized distal extension covered with numerous small sessile papillae. A prominent distal protuberance is a further very conspicuous feature of the genital cone of *T. davtiani* (Fig. 1a).

Rose (1962) reported that the spicules of the 2 species were very similar in shape and only slightly different in size (*T. davtiani*: up to 0,21 mm long and 0,028 mm wide and *O. trifurcata*: up to 0,28 mm long and 0,032 mm wide).

The 2 species are easily distinguished with a little practice. The distal protuberance of the genital cone of *T. davtiani* can be distinguished not only ventro-dorsally but in cleared specimens also laterally (Fig. 1c) from the lateral aspects of the genital cone of *O. trifurcata* (Fig. 1e).

The classification of the Ostertagiinae even at generic level is still to be resolved. Gibbons & Khalil (1982) recognize *Ostertagia* by the characteristic of an enlarged

proconus of the male genital cone. Durette-Desset (1983) characterizes *Ostertagia* by the 2-1-2 configuration of the lateral bursal rays, with rays 5 and 6 as long as or longer than rays 2 and 3. *Ostertagia lyrata* and *Ostertagia ostertagi* are therefore recognized species of this genus. The authors Gibbons & Khalil (1982) as well as Durette-Desset (1983) all suggest the use of *Teladorsagia* for *T. circumcincta*, *T. trifurcata* and *T. davtiani* because these species lack a proconus on the male genital cone and the lateral bursal rays show a 2-2-1 configuration with ray 4 as long as or longer than ray 5.

Recent studies (Lichtenfels, Pillit & Lancaster, 1987) on the patterns of the cuticular ridges (synlophe) and the shape and size of the oesophageal valve suggest that the species of *Teladorsagia* are more closely related to some species of *Ostertagia* than the species of *Ostertagia* to each other and DNA studies are underway in an attempt to confirm certain morphological findings.

Dunn (1978), like many other authors, refers to *T. davtiani* as the only species of *Teladorsagia*.

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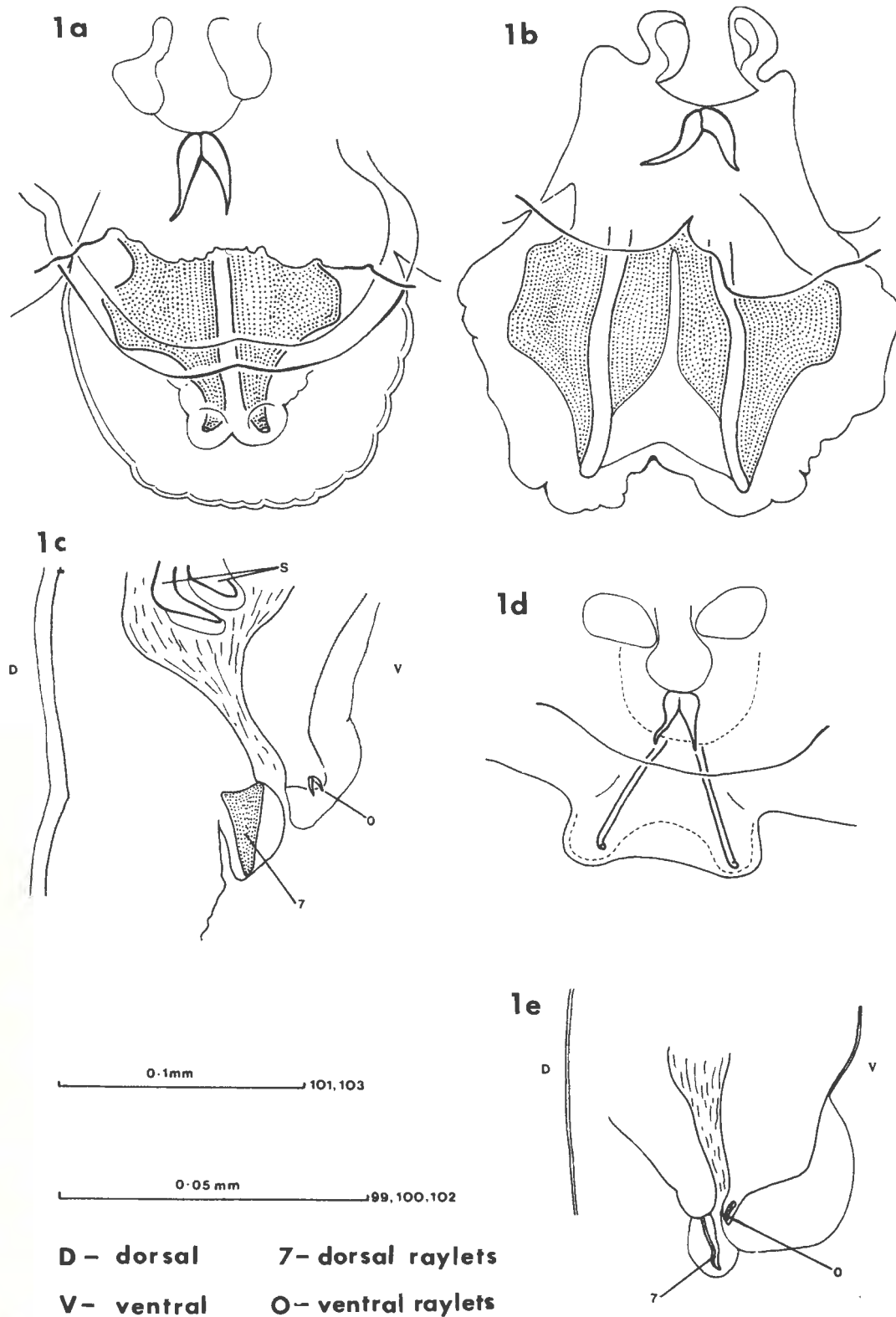


FIG. 1 After Gibbons & Khalil (1982)

- (a) *Teladorsagia davtiani*, ventral view of genital cone
- (b) *Teladorsagia trifurcata*, ventral view of genital cone

- (c) *Teladorsagia davtiani*, lateral view of genital cone
- (d) *Teladorsagia circumcincta*, ventral view of genital cone
- (e) *Teladorsagia trifurcata*, lateral view of genital cone