EXPERIMENTAL STUDY ON THE LIFE CYCLE OF MONIEZIA BENEDENI (MONIEZ, 1879)

This is a continuation of our previous studies (V. S. Narsapur, J. Prokopič, Folia parasit. (Praha) 26: 239—243, 1979) dealing with the effect of temperature on the life cycles of cestodes of the genus *Moniezia*. The methods are described in the above paper.

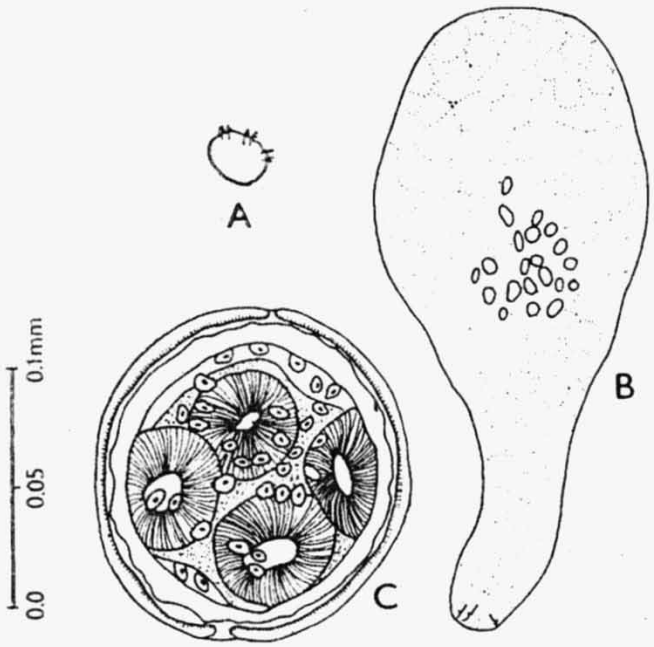

Fig. 1. Developmental stages of *M. benedeni*. A — oncosphere, B — pyriform stage, C — developed cysticercoid.

About 30 species of oribatid mites have been reported to serve as intermediate hosts of *Moniezia benedeni* (Moniez, 1879) (V. A. Potemkina, Dokl. AN SSSR 42: 146—198, 1944, J. Prokopič 1962 and V. S. Narsapur 1976). In our experiments, six species of oribatid mites were infected with eggs of *M. benedeni* under laboratory conditions. The mites were kept at 28 °C and 85 % of relative humidity. Table 1 shows a survey of infected mites; the most sensitive was *Scheloribates laevigatus* (C. L. Koch) (38.8 %) which belongs to the most abundant mite species in the pasturelands in Czechoslovakia. Cysticercoids were found also in *Sch. latipes* (C. L. Koch), *Platynothrus peltifer* (C. L. Koch) and *Trichoribates novus* (Sellnick). The last two were recorded for the first time in Czechoslovakia as intermediate hosts of *M. benedeni*. *T. novus* is reported for the first time to serve as intermediate host of cestodes. The development of cysticercoid lasted 34 days at a constant temperature of 28 °C and 85 % relative humidity. According to the above-cited and other authors, the development of *M. benedeni* cysticercoids lasts 51—170 days at lower or variable temperatures. The effect of temperature on the development of *Moniezia* cysticercoids was first discussed by V. S. Narsapur and J. Prokopič (1979 — see above). The following mite species have hitherto been reported to serve as intermediate hosts of *M. benedeni* in Czechoslovakia: *Scheloribates laevigatus* (C. L. Koch), *Sch. latipes* (C. L. Koch), *Galumna elimata* (Oudms.), *Achipteria coleoptrata* (L.,) *Trichoribates trimaculatus* (C. L. Koch), *T. novus* (Sellnick), *Liacarus coracinus* (C. L. Koch) and *Platynothrus peltifer* (C. L. Koch).

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Table 1. Survey of oribatid mites artificially infected with cysticercoids of *Moniezia benedeni*

Intermediate host species	Examined	Positive	%
Scheloribates laevigatus	26	8	30.8
Scheloribates latipes	6	1	—
Platynothrus peltifer	53	1	1.9
Trichoribates novus	3	1	—
Galumna elimata	2	—	—
Liacarus coracinus	3	—	—
Total	93	11	