

Gut parasites of *Ramanella obscura* (Günther, 1864) (Anura: Microhylidae): A preliminary study

This paper reports on the gut parasites of *Ramanella obscura*, an endemic frog in Sri Lanka. Juvenile frogs and tadpoles of two spawns (laid in August 2000 and October 2000) from ponds A and B (Sarasavigama, Kandy District) respectively, were observed at weekly intervals and each week, smears from the gut contents of five tadpoles/juvenile frogs were examined for parasites using a light microscope. Smears were stained with Harris' Haematoxylin for identification of parasites. Lengths and widths of ten parasites of each species were measured from all parasite positive tadpoles. Protozoan parasites belonging to three genera, namely, *Opalina*, *Protoopalina*, *Nyctotherus* and one species of nematode were found during investigations. Percentages of infected tadpoles were, 40-60% in pond A (n=45), and 20-80% in pond B (n=50). Tadpoles were refractory to infections during the first 4-5 weeks. The first parasite to infect tadpoles was *Opalina* sp., followed by *Protoopalina* sp. and *Nyctotherus* sp. one and two weeks later at both ponds. For ponds A and B parasites per tadpole ranged, from 9-

559.33±491.64 & 16-1408 for *Opalina*, 16-8±12.73 & 26±17.10-326±425.71 for *Protoopalina* and 1-2 & 1.5±0.71-28 for *Nyctotherus*.

Table 1: The ranges in mean lengths and widths of parasites from ponds A and B.

Parasite	Pond A		Pond B	
	Length (µm) Width (µ)	m)	Length (µm)	Width (µm)
<i>Opalina</i>	70.06±28.06 106.12±15.28	23.78±7.69 71.04±19.40	43.89±4.95 90.07±12.55	16.24±2.50 41.17±11.03
<i>Protoopalina</i>	97.79±8.50	19.9±1.70 31.30±3.19	75.58±19.81 116.23±22.17	13.83±6.89 20.85±9.42
<i>Nyctotherus</i>	19.54 155.50±59.22	10.66 14.65±51.69	78.73±31.03 154.88±76.26	37.29 108.97±73.68

Ramanella obscura gets infected with parasites during the tadpole stage. There appears to be an initial period of 4-5 weeks when the tadpoles are refractory to infection. It could also be possible that parasites in the environment are synchronizing their life cycle stages with metamorphosis of the frog and hormones could be a factor influencing the time of infection of tadpoles. Studies are required to investigate these aspects further.