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THE MORPHOLOGY AND MORPHOMETRY OF ADULT *S. MANSONI* RECOVERED FROM UNDERNOURISHED INFECTED MICE. Oliveira, S.A., Barbosa Jr., A.A., Gomes, D.C., Machado-Silva, J.R., Montarroyos, U., Barros, A.F., Coutinho, E.M. FIOCRUZ (CPqAM, CPqGM, IOC) e UERJ.

Objectives: Previous observations have reported on some unfavourable effects of malnutrition on *Schistosoma* worms, based on bright microscopy. This paper aims to study by morphometric techniques, the most important morphological parameters in adult male and female parasites recovered from undernourished and well fed albino mice (controls). **Methods and Results:** Albino Swiss mice were infected with 80 cercariae of *Schistosoma mansoni* (BL strain). Undernourished animals were fed a multideficient and essentially low protein diet (RBD diet) and compared to well fed control mice (NUVILAB diet). Animals were perfused 75 days post-infection. All specimens were fixed in 10% formalin, stained with carmine chloride, cleared in creosote and mounted in a mixture of Canada balsam and creosote 1:1. One hundred male and 60 female specimens from each group (undernourished and control) were examined using an image system analysis LEICA Quantimet 500c coupled to a semi-automatic device for morphometry (Sigma Scan Measurement System). Significant differences ($p < 0.05$) were detected, with lower values for specimens from undernourished hosts, regarding linear measurements for total worm body length, tail length, width of the distal body end, distance from the anterior extremity of the body to the posterior end of the testes, distance between the suckers and for projection areas of the body mass, testes masses, oral and ventral suckers. For female worms, significant differences were detected for most linear parameters (except distance between the suckers, body width below the ventral sucker, egg length and ovary width) and area measurements (except projection area for the oral sucker). For statistical analysis, the Student's t test for unpaired samples was applied. All the female parasites recovered from control mice had eggs in the uterus and in only 84% of those recovered from undernourished mice the presence of schistosoma eggs could be detected. **Conclusions:** The nutritional status of the host has negative influence on the biology of *Schistosoma mansoni* of both sexes, leading to changes on the parasite structure and function, probably through unavailability of essential nutrients to the parasites.