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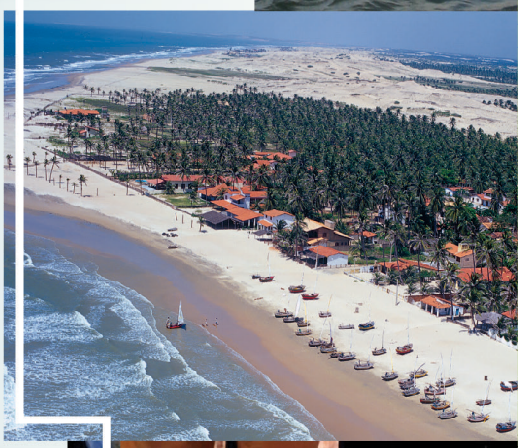

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SEBRAE

OVIPOSITION RATE OF *Dawestrema cycloancistrium* MONOGENEAN PARASITE OF PIRARUCU *Arapaima gigas*

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High infestations of the gill monogenea *Dawestrema cycloancistrium* in fingerlings of pirarucu, *Arapaima gigas*, usually cause mass mortality. Since oviposition rate is an indicator of pathogenicity of the parasites, we investigated this index.

Twelve pirarucus (14.8 ± 3.8g; 13.7 ± 1.2cm) naturally parasitized were distributed in 12 containers with 5L of water and maintained under natural 12:12 light-dark cycles. During 3 days, every 24 hours, all the water in the containers were filtered in a 14 m^2 20μm net in order to retain the parasite eggs. Then, the net was washed and the content was transferred to 60mL bottles with formol 5%. The number of eggs was counted in three subsamples of 1mL each and estimated for 60mL. The net was verified to count the retained eggs. At the end of the experimental trail, the load of adult parasite in the gills was evaluated. The oviposition rate was estimated using: average number of eggs counted within 24 hours / average number of adult parasite in gills.

The physical-chemical water variables during the trail were kept as 27.4 ± 0.6°C; 4.23 ± 1.08mgO_2/L; pH 7.48 ± 0.20; 0.00mg ammonia/L. The prevalence of *D. cycloancistrium* was 100% and intensity was 39.6 ± 27.9. The oviposition rate in 24 hours was 80.1 ± 37.0 (37.1 - 156.5) eggs per adult (Figure 1).

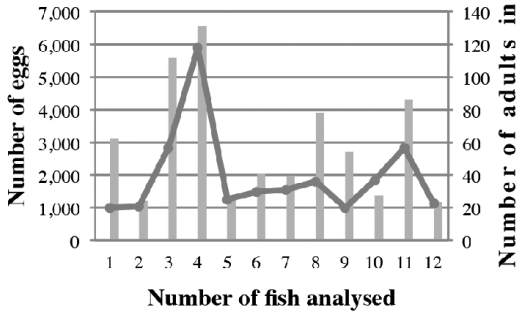

Figure 1: Intensity of *D. cycloancistrium* in *Arapaima gigas* gills and average number of eggs produced in 24 hours.

The index is less than the average for monogeneas compared with the previous registers for different species. It was observed too that the oviposition rate on the second day was lower than the first and third days, suggesting that might be a flutuation on oviposition rate of *D. cycloancistrium* (Figure 2). Even tough, reinfestation occurs easily in fish maintained in closed systems or with poor water quality, as many times still occurs in pirarucu aquaculture systems. In addition, the analysis and quantification of eggs may be a non-invasive method of diagnosing *D. cycloancistrium* in gills of pirarucu.

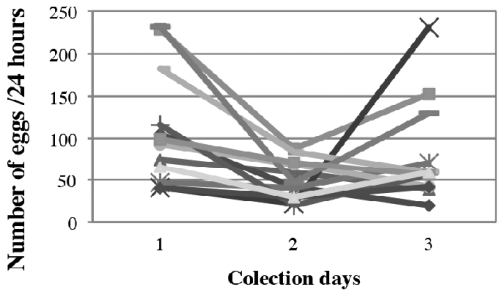

Figure 2: Flutuation on oviposition rate of *D. cycloancistrium* during three days of collection.

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