



Working towards optimising oral praziquantel for treating monogenean ectoparasites of captive fishes

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Monogeneans are parasitic flatworms responsible for disease or host mortality in public aquariums. New species have been discovered due to their negative impacts on the health of their captive hosts. Various treatments have been explored to control monogeneans, notably the anthelmintic praziquantel. It is a registered treatment against schistosomiasis and cysticercosis in humans, against Trematoda and Cestoda in animals, and has been used to treat monogeneans on fishes in aquariums with varying degrees of success.

The development of the use of praziquantel in aquariums has stagnated as it is not financially viable for pharmaceutical companies to test the drug on various fish species due to limited demand. It is not registered for use in fishes in many countries, and products containing praziquantel are registered for use on specific finfish species only. Empirical data on the drug's efficacy against different parasite species and hosts are lacking so aquariums rely almost exclusively on sharing anecdotal information. Unfortunately, current methods used to treat monogeneans with praziquantel in aquariums are severely flawed.

The Two Oceans Aquarium, in collaboration with the Monterey bay Aquarium, is investigating the uptake and delivery of orally administered praziquantel for treating monogeneans and aims to optimise its use for treating captive elasmobranchs.