



**Water Research Group**  
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## 9 Questions with WRG authors

**Title of the paper:** Host-dependent differences in measures of condition associated with *Anilocra* spp. parasitism in two coral reef fishes

**Journal:** Environmental Biology of Fish

**Authors:** R.L. Welicky, D.C. Parkyn, P.C. Sikkel

**Read the article:** <https://link.springer.com/article/10.1007%2Fs10641-018-0770-y>



*Anilocra chromis*. Photo by: JM Artim

[Dr. Rachel Welicky](#)



**1. What previous work was integral to the new study?**

Previously, there were very few studies that quantified how cymothoid parasites influence host condition and these studies were primarily about reproductive condition and general growth relationships between the parasite and its host. So, this paper aims to provide more information on how these parasites influence host condition aside from those metrics.



**2. Why do you care about this particular subject?**

Parasites, particularly cymothoids, are usually assumed by people to be detrimental to the survival of hosts, but there were few published data to support this assumption, and no data from host–cymothoid assemblages from the Caribbean. So, this paper was written to figure out how detrimental cymothoids really are to their hosts.





**3. Did any of the findings surprise you?**

Almost all of my results surprised me! I was really expecting to see that *Anilocra* spp. influenced hosts negatively across all our metrics and for both fish species, and we certainly did not find this!



**4. What are some of the limitations of this study?**

One limitation of this study is the gut contents work. We were unable to get dietary information for chromis given their foraging ecology and the time we collected the fish.



**5. Do you expect these findings to be controversial in your field?**

There really is not enough information on the effects of *Anilocra* spp. on fish hosts, so without other studies to compare our findings to, there is no cause for 'controversy'.



**6. What are the broader implications of these findings?**

This study demonstrates that we cannot generalize the effects of parasitism on fishes, which I think a lot of people try to do. So, hopefully this paper makes people think about host-parasite relationships individually first, and generalized, second.



**7. What do people usually get wrong about this subject?**

Well, with cymothoid parasites, usually people identify the parasite wrong. Our research group is resolving this issue, which helps up improve the accuracy of ecological and molecular research studies.





**8. Looking back on the study, what were some of the most memorable moments for you and your colleagues?**

One of the most memorable moments was seeing the sunrise day in and day out during fish collection, and watching the fish appear. We had a wake-up call of 03:15 so we could be in the water by 04:00, waiting for the fish to arrive back to their daytime home from their nightly foraging grounds. The sunrise and the fish return are pretty amazing to witness.



**9. What are you working on next?**

Everything cymothoid! Together with a WRG MSc student, we are quantifying what cymothoids are eating. Is it their hosts? Stay tuned!

Along with Prof Smit, I am redescribing *Anilocra capensis* from South Africa, which hasn't been re-examined since 1818! This paper will also describe 6 new species of *Anilocra* from Africa. Cool stuff!



**Thank you for your time, Rachel!**

