tkint, T., Verheyen, E. & Adriaens, D. (2009) **Structural and functional trade-offs between mouth brooding and feeding in two cichlid species and their hybrids.** *16th Benelux Congress of Zoology* (Wageningen, the Netherlands) (oral presentation).

The radiation of cichlids of the East African lakes provides us with an exceptional insight of how evolution works. Their rapid speciation and extensive morphological diversity makes these fishes ideal subjects for studying evolutionary processes. Much of that morphological diversity involves the head, which is densely packed with structures performing different functions. It can thus be expected that some of these functions may not be optimally exerted, especially functions that are performed by the same apparatus. The oral apparatus, for example, not only plays a role in feeding and breathing, but also serves to incubate the eggs in many cichlid species. The aim of this study is to better understand the implications of mouth-brooding on the morphology and performance of the feeding apparatus. Hence, a trade-off between reproductive success (direct fitness) and feeding performance (indirect fitness) is expected. It is also hypothesized that these implications also depend on the dominant mode of feeding (suction vs biting). So we tested this by studying a suction feeding *Haplochromis piceatus* and a biting *H. sauvagei* , both maternal mouthbrooders. Comparing both intersex and interspecific phenotypic variation, this may allow us to unravel this trade-off. Additionally, the hybrid between these two parental species was included. A geometric morphometric analysis of external morphology showed clear differences between species and sexes. Most of the variation was situated in the head and could be related to their feeding habits. Functional characterization revealed that some aspects of feeding do indeed show a trade-off with mouth-brooding capacity.