

Supervisor :

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Research project title :

**Consistent behavioural differences and sexual selection in a cichlid,
*Pelvicachromis pulcher***

Key words :

Animal personality variation; exploration; aggression; sexual selection

Abstract :

An ongoing challenge is to understand the evolution and maintenance of consistent behavioural differences between individuals of the same population. Recent work suggests that sexual selection maintains such animal personality differences (Schuett et al. 2010). Some combinations of personalities in breeding pairs have positive effects on offspring fitness (reviewed in Schuett et al. 2010) and recent evidence suggests that females choose a mate on the basis of mate behaviour while considering their own behavioural type in their choice (Schuett et al. 2011). Why such non-random choice occurs and why some personality combinations are more successful in raising young than others is still unknown. In his MSc project, Mr. Benoit Very will investigate whether females of *Pelvicachromis pulcher*, an African cichlid with biparental care, consider their own and mate personality during choice. If non-random choice for personality occurs, he will investigate whether the combination of personalities in a pair influences parental care and care coordination.

Two references:

Schuett, W, Tregenza, T & Dall, SRX (2010) Sexual selection and animal personality. *Biol Rev* 85, 217-246.

Schuett, W, Godin, J-GJ & Dall, SRX (2011) Do female zebra finches, *Taeniopygia guttata*, choose their mates based on their "personality"? *Ethology*, 117, 908-917.

Technical implementation :

The experiments will be conducted at the fish facilities of the University of Hamburg, Germany. Fish will be screened for their behaviour (e.g. exploration, aggression); mate choice trials will be conducted in mate choice chambers and pairs will be observed for their care during breeding.

Skills required:

Planning of experiment, day-to-day running of experiment, behavioural observations, video analyses, data management and analyses, writing up thesis. Mr. Benoit Very will receive all relevant training from Dr. Wiebke Schuett.