



Hannah Mruck (Autor)

**Growth performance of temperature treated phenotypic males
and effect of different light regimes on female Nile tilapia
(*Oreochromis niloticus*)**

**Growth performance of temperature
treated phenotypic males and effect
of different light regimes on female
Nile tilapia (*Oreochromis niloticus*)**

Hannah Mruck



Cuvillier Verlag Göttingen
Internationaler wissenschaftlicher Fachverlag

<https://cuvillier.de/de/shop/publications/7524>

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen, Germany
Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: <https://cuvillier.de>



Table of Contents

List of Tables	ix
List of Figures	x
List of Abbreviations	xi
Summary	1
Zusammenfassung	2
Chapter 1	3
Introduction.....	3
1.1. Preface.....	4
1.2. Factors influencing sex determination	5
1.3. Monosex populations in Nile tilapia	6
1.4. The role of melatonin in fish	8
1.5. Effect of photoperiod on Nile tilapia	11
1.6. Visual sensitivity in Nile Tilapia.....	13
1.7. Effect of light colour on Nile tilapia	16
1.8. Aim of the study.....	20
1.9. References	21
Chapter 2.....	27
Growth comparison between temperature treated phenotypic males, hormone treated phenotypic and genetic males of Nile tilapia (<i>Oreochromis niloticus</i>)	27
2.1. Abstract	28
2.2. Introduction	29
2.3. Material and Methods	30
2.3.1. Fish	30
2.3.2. Experimental location.....	30
2.3.3. Grow out period.....	31
2.3.4. Data analysis.....	32
2.4. Results	32
2.5. Discussion	34



2.6. References	36
Chapter 3.....	39
Effect of light regime and light colour on growth and gonadal development in female Nile tilapia (<i>O. niloticus</i>)	39
3.1. Abstract	40
3.2. Introduction	40
3.3. Materials and Methods	43
3.3.1. Fish	43
3.3.2. Experimental location.....	43
3.3.3. Data analysis.....	46
3.4. Results	46
3.4.1. Results light regime	46
3.4.2. Results light colour.....	51
3.5. Discussion	59
3.6. References	62
Chapter 4.....	67
Discussion and conclusion.....	67
4.1. Discussion	68
4.2. Conclusion and perspective.....	71
4.3. References	72
Curriculum vitae.....	75
Lebenslauf	76
Acknowledgement.....	77