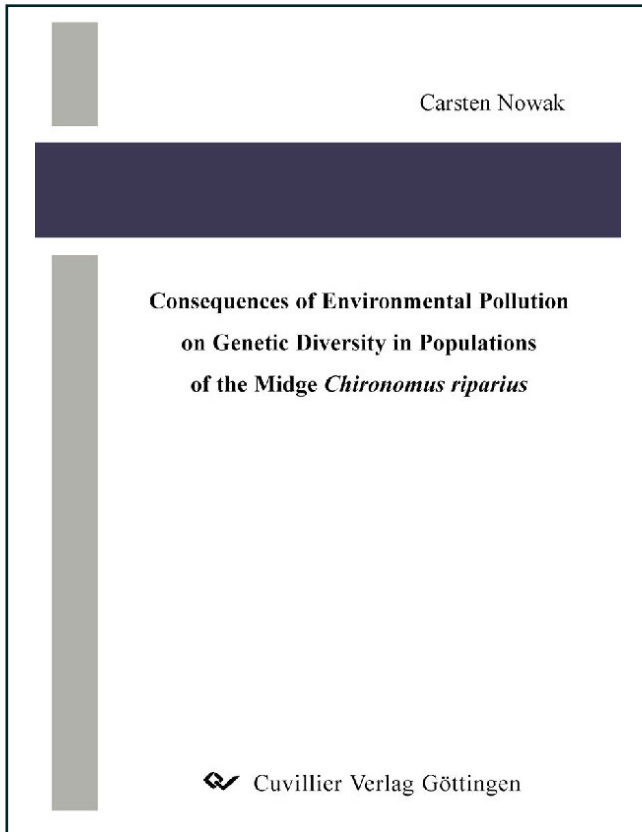




Carsten Nowak (Autor)

**Consequences of Environmental Pollution on Genetic Diversity in Populations of the Midge *Chironomus riparius***



<https://cuvillier.de/de/shop/publications/1406>

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen, Germany

Telefon: +49 (0)551 54724-0, E-Mail: [info@cuvillier.de](mailto:info@cuvillier.de), Website: <https://cuvillier.de>

## Contents

<b>1</b>	<b>Introduction</b>	05
1.1	General Introduction	05
1.2	Outline of the Thesis	06
<b>2</b>	<b>Development and Localization of Microsatellite Markers for the Sibling Species <i>Chironomus riparius</i> and <i>Chironomus piger</i></b>	09
2.1	Introduction	10
2.2	Methods	10
2.3	Results and Discussion	11
<b>3</b>	<b>Genetic Impoverishment in Tributyltin Exposed Strains of the Midge <i>Chironomus riparius</i></b>	14
3.1	Introduction	14
3.2	Methods	16
3.3	Results	19
3.4	Discussion	23
<b>4</b>	<b>Consequences of Inbreeding and Reduced Genetic Variation on Tolerance to Cadmium Stress in the Midge <i>Chironomus riparius</i></b>	26
4.1	Introduction	26
4.2	Methods	28
4.3	Results	30
4.4	Discussion	35
<b>5</b>	<b>Genetic Impoverishment in Laboratory Cultures of the Model Organism <i>Chironomus riparius</i></b>	39
5.1	Introduction	39
5.2	Methods	40
5.3	Results	43
5.4	Discussion	46
<b>6</b>	<b>Variation in Tolerance to Cadmium Exposure Among Genetically Characterized Laboratory Populations of the Midge <i>Chironomus riparius</i></b>	49
6.1	Introduction	49

6.2	Methods	51
6.3	Results	53
6.4	Discussion	58
<b>7</b>	<b>Effects of Environmental Pollution on Genetic Diversity in Natural Populations of <i>Chironomus riparius</i> and <i>Chironomus piger</i></b>	<b>61</b>
7.1	Introduction	61
7.2	Methods	64
7.3	Results	70
7.4	Discussion	78
<b>8</b>	<b>General Conclusions</b>	<b>81</b>
8.1	Outlook	83
<b>9</b>	<b>References</b>	<b>85</b>
<b>10</b>	<b>Zusammenfassung (<i>Summary in German</i>)</b>	<b>97</b>