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**THESIS**

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| **TITLE** | Benthic ecosystem response to changes in primary productivity levels |
| RESEARCH QUESTION | How do changes in primary productivity levels affect food-chain dynamics of the benthic ecosystem? |
| SUPERVISOR | Daniel van Denderen, Tobias van Kooten & Adriaan Rijnsdorp |
| LOCATION | IMARES, IJmuiden |
| PERIOD | 6 months |
| LINK FOR MORE INFORMATION LINK IS MADE BY AFI SECRETARIAT! | |

**MORE INFORMATION (if available)**

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| SHORT DESCRIPTION |
| The response of benthic ecosystems to the impact of bottom trawling largely depends on the strength and mode of trophic control of benthic invertebrates (hereafter benthos). Benthos may be regulated by demersal fish (top-down control) or by its resources (bottom-up control).The mode of trophic control of benthos is largely unknown for many marine systems worldwide. This is surprising as this information is urgently needed in the light of the recent shift towards ecosystem-based fishery management. One approach to predict the mode of trophic control of benthos is by examining the response of the benthic system to changes in primary productivity levels. |
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| RESEARCH AIM/ SCOPE |
| In this project we will examine the response of the benthic system (demersal fish – benthos – resources) to changes in primary productivity levels in the Dutch part of the North Sea over a period of 20 years (1992-2012).  Outcome will be related to a food web model which may also be constructed by the student. |

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| REQUIREMENTS |
| MSc student with interest and background in ecology |

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| OTHER INFORMATION |
| Please contact [daniel.vandenderen@wur.nl](mailto:daniel.vandenderen@wur.nl) for more information. |