

Foreword

The present volume of the *Estonian Journal of Ecology* includes selected papers of the 13th annual seminar of the Marine Biology Department of the Estonian Marine Institute held at Toosikannu on 7–9 February 2011. As usual, we have tried to cover a diverse range of topics and to target the most crucial issues and concerns for environmental conservation.

The implementation of the EU Water Framework Directive and Marine Framework Strategy Directive raises challenges for the scientific community. Specifically, we as scientists are expected to establish sensible and sensitive indicators to assess various human-induced pressures on coastal marine ecosystems. However, this is not an easy task. As reported in the first two publications, marine systems are not static and assessments are likely to become misinterpreted if knowledge about the natural variability is lacking. Thus, the relative magnitude in the human- and naturally induced variability needs to be resolved in future studies and incorporated into the established indices.

Traditionally, the special issue also deals with some aspect of coastal fisheries. The third paper investigates the fecundity of the autumn spawning herring in the northern Baltic Sea. Currently, the population of the autumn spawning herring is at a low level and the authors try to identify mechanisms and processes that drive the population dynamics of this species.

Finally, the Marine Biology Department of the Estonian Marine Institute has strong traditions in Natural History writing. The last two papers concentrate on the new taxonomic findings of the Estonian coastal sea. One of them presents two new species to the Estonian flora: the benthic macroalgae *Vaucheria* cf. *dichotoma* and *Punctaria tenuissima*. Together with the ongoing bio-invasion pressure, the Estonian coastal sea increasingly also receives non-native invertebrate species. As shown in the last paper, the palaemonid shrimp *Palaemon elegans* has formed a permanent population all over the Estonian coastal sea within only about one year.

The compiler of this volume is grateful to all contributors.

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