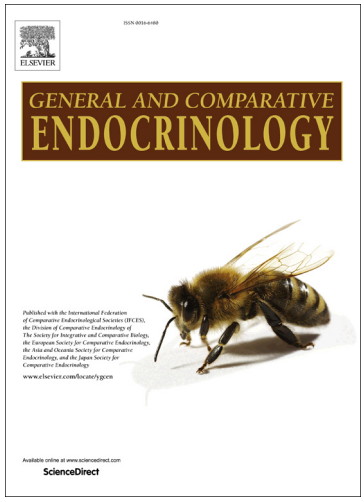

Research paper

Changes in steroid profiles of the blue mussel *Mytilus trossulus* as a function of season, stage of gametogenesis, sex, tissue and mussel bed depth.

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Highlights:

1. Seasonal changes in the levels of free steroid hormones in females and males *M. trossulus* from the southern Baltic Sea were detected.
2. The highest steroid levels (SL) were found in mussels sampled in spring and summer while the lowest were found in mussels sampled in winter.
3. No correlation between steroids level and stage of gonads development (measured as GI) was confirmed: Elevated SL coincided with the highest GI but the lowest SL did not co-occur with the lowest GI.
4. We found sex-related differences in steroids concentration, as well as sex-specific steroid profiles with estrogen domination in females and androgen domination in males.