

{rokbox title=|Cladophora glomerata :: Foto: Emil Ólafsson (COB-IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-emil-olafsson-cladophora-glomerata-olafsson-et-al-2013-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-emil-olafsson-cladophora-glomerata-olafsson-et-al-2013-thumb{/rokbox}

Emil Ólafsson, Katri Aarnio, Erik Bonsdorff, Nina Larissa Arroyo, (2013). [Fauna of the green alga *Cladophora glomerata* in the Baltic Sea: density, diversity, and algal decomposition stage](#)
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Abstract: The green alga *Cladophora glomerata* (L.) is a common macrophyte in the northern Baltic Sea, where it forms drifting mats during summer. We studied the effect of its stage of decomposition on the density, diversity, and resource usage of associated meio- and macrofauna. We hypothesised that mobile species would show small variation in food preferences among decomposition stages, while high variation was expected in stationary species, as reflected in their stable isotope signatures. The assemblage structure of the fauna differed between the 3 studied algal degradation stages, Green (attached, healthy), Degraded (attached, but starting to decay), and Drift (detached, decaying). C/N ratios were highest in green algae and decreased in decaying algal stages. Variation in stable isotope ratios of stationary and mobile species supported our resource use hypothesis. The decomposition stage of *C. glomerata* significantly affected the carbon and nitrogen stable isotope ratios of both the alga and its main grazer species. Higher invertebrate diversity in the more decaying stages was probably facilitated by decomposer microbes adding resource types and by the proximity of the detached algal mats to the sediment.

Keywords: