Functional biology of sympatric krill species - DTU Orbit (08/11/2017)

Functional biology of sympatric krill species

Here we compare the functional biology of the sympatric krill species, Meganyctiphanes norvegica and Thysanoessa inermis. For M. norvegica, we investigated functional responses on diatoms and copepods, together with prey size spectra on plankton ,400 mm and copepods in the size range 500–3220 mm. For T. inermis, only prey size spectrum on plankton ,400 mm were investigated. The prey size ranges of both species include organisms ,400 mm, and they consequently graze on several trophic levels. However, T. inermis feed on cells ,10 mm equivalent spherical diameter (ESD), whereas M. norvegica only feed on cells .10 mm. Meganyctiphanes norvegica show maximum predation on 800–1600 mm sized copepods, corresponding to a predator:prey size ratio of 17.0+2.2. Functional response experiments with M. norvegica follow a Holling type III functional response, both when feeding on diatoms and copepods, but with an order of magnitude higher ingestion rate on the copepod prey. The two functional groups, M. norvegica and Thysanoessa spp., overlap in prey size spectra. However, there are differences in their ability to exploit different prey
classes. Here, we present clearance rates of both krill species on natural plankton illustrating the two species' wide particle range spectra

General information

State: Published
Organisations: National Institute of Aquatic Resources, Section for Marine Ecology and Oceanography, Greenland Climate Research Centre
Authors: Agersted, M. D. (Intern), Nielsen, T. G. (Intern)
Pages: 575-588
Publication date: 2016
Main Research Area: Technical/natural sciences

Publication information

Journal: Journal of Plankton Research
Volume: 38
Issue number: 3
ISSN (Print): 0142-7873
Ratings:

BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.92 SJR 1.098 SNIP 0.848
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.025 SNIP 0.796 CiteScore 1.77
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.095 SNIP 1.255 CiteScore 2.24
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.289 SNIP 1.109 CiteScore 2.39
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.557 SNIP 1.101 CiteScore 2.43
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.158 SNIP 1.045 CiteScore 1.99
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.186 SNIP 0.98
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.922 SNIP 1.046
Web of Science (2009): Indexed yes

BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.174 SNIP 1.037
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.31 SNIP 1.225
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 1.19 SNIP 1.118
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 1.116 SNIP 1.068
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 1.035 SNIP 1.101
Scopus rating (2003): SJR 1.315 SNIP 1.299
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.239 SNIP 1.068
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.234 SNIP 1
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 1.226 SNIP 1.049
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 1.598 SNIP 1.191
Original language: English
DOIs:
10.1093/plankt/fbw017
Publication: Research - peer-review › Journal article – Annual report year: 2016