Acanthoecid choanoflagellates from the Atlantic Arctic Region - a baseline study

The examination and statistical analysis of loricate choanoflagellate material collected from Greenland waters during the period 1988-1998 represents a de facto baseline study of heterotrophic nanoflagellates from the Atlantic Arctic Region. The geographic sites sampled are Disko Bay (West Greenland) and the high-arctic North-East Water (NEW) and North Water (NOW) polynya. The analyses encompass close to 50 taxa. Some of these are described as new species, i.e. Acanthocorbis glacialis, A. reticulata and Diaphanoeca dilatanda. Two distinct clusters of species that are separated in time and space occur at all three sampling sites. A PCA analysis of NEW and NOW data points to that one community is linked to e.g. an early season high nutrient and low phytoplankton biomass scenario, whereas the other is predominant when nutrient levels are exhausted and the phytoplankton biomass high or declining. The material additionally allows for a comprehensive examination of e.g. the Cosmoeca ventricosa morphological variability encountered, as well as puts on record bimodal size variability within a number of species.

Bridging the gap between morphological species and molecular barcodes - Exemplified by loricate choanoflagellates

Translating the vast amounts of molecular barcodes from global surveys of microbial eukaryotes into ecological insight depends critically on a well-curated reference database with adequate taxonomic coverage. In this respect, the choanoflagellates resemble other eukaryotic lineages: reasonable coverage at higher taxonomic levels, but missing diversity at the species level. The acanthoecid (loricate) choanoflagellates are well-characterized morphologically, with
over 115 species described, but less than 10% with any sequence data. Because lorica shape is species-specific, the acanthoecids represent an opportunity to link morphological with molecular data within a lineage of eukaryotes. To match morphospecies to sequences, we sampled the Kattegat and the Isefjord in Denmark in September 2014 and February 2015. We identified 45 morphospecies and sequenced ribosomal DNA of nine previously unsequenced species, roughly doubling the number of acanthoecid species with sequence data, including the first data representing five genera: Bicosta, Calliacantha, Cosmoeca, Crinolina and Pleurasiga. Our phylogenetic analysis is mainly congruent with morphology-based systematics. Five of the newly sequenced species match a previously unidentified barcode from Tara Oceans, providing access to the global distribution of species isolated from Danish waters. One species, Calliacantha natans, is the second most globally abundant choanoflagellate present in Tara Oceans. Our project translating new ribosomal DNA sequences to distributions of described species on a global scale supports the approach linking morphology to molecular barcodes for microbial eukaryote ecology.

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Sex is found in all major eukaryotic groups of organisms. It has been known for some time that the choanoflagellates also possess the genes involved in meiosis and a full sexual cycle was also recently accounted for in Salpingoeca rosetta. With reference to the loricate choanoflagellates the current status is that only circumstantial evidence, from wild material of Bicosta spinifera, exists in favour of documenting division patterns that go beyond plain asexual division, and that has the potential to represent stages in a sexual life cycle. Here we present further evidence from wild material documenting possible morphotype changes that might similarly indicate the existence of complex life cycles. In this particular case, it revolves around the existence of so-called ‘combination loricas’ (i.e. two loricas that occur physically united), representing consistent species combinations from the genera Acanthocorbis and Stephanoeca.

Circumstantial evidence of life history events in loricate choanoflagellates

Sex is found in all major eukaryotic groups of organisms. It has been known for some time that the choanoflagellates also possess the genes involved in meiosis and a full sexual cycle was also recently accounted for in Salpingoeca rosetta. With reference to the loricate choanoflagellates the current status is that only circumstantial evidence, from wild material of Bicosta spinifera, exists in favour of documenting division patterns that go beyond plain asexual division, and that has the potential to represent stages in a sexual life cycle. Here we present further evidence from wild material documenting possible morphotype changes that might similarly indicate the existence of complex life cycles. In this particular case, it revolves around the existence of so-called ‘combination loricas’ (i.e. two loricas that occur physically united), representing consistent species combinations from the genera Acanthocorbis and Stephanoeca.
Baltic Sea coccolithophores - an overview of insights into their taxonomy and ecology from the last 40 years

It is an established fact that coccolithophores are of little importance with respect to biomass and diversity in the Baltic proper. The likely biogeochemical and environmental reasons for this have recently been critically analyzed and reviewed. The main conclusion is that the calcium carbonate saturation of the Baltic Sea is the main controlling feature, and that in particular an undersaturation during wintertime remains the critical bottleneck for coccolithophores to prevail in the Baltic proper. While there is no reason to question these observations, it is still relevant to put on record the actual findings of coccolithophores from the Baltic proper. Examinations of Baltic Sea material from the Bothnian Sea, the Bothnian Bay and the Gulf of Finland prepared for transmission electron microscopy has thus revealed a consistent presence of a low diversity community of lightly calcified coccolithophores (i.e. Balaniger virgulosa HOL and HET, Papposphaera arctica HOL cfr. and Papposphaera iugifera). When including here also material examined from the Danish transitional waters connecting the North Sea and the Baltic proper, it is possible to generally support the presence in the western Baltic, the Sounds and the Kattegat of a contingent of coccolithophores that appear to be either persistently present within the area or episodically occurring as determined by larger scale hydrographical events within the North Sea/Baltic Sea confluence area.

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Coccolithophores in Polar Waters: Papposphaera arctica HET and HOL revisited
It has been generally accepted based on the finding of combination coccospheres in field samples that Turrisphaera arctica and Papposphaera sarion are alternate life-cycle phases of a single species. However, while recently revisiting P. sarion it became evident that the Turrisphaera phase of this species is not identical with T. arctica but rather is an undescribed species of Turrisphaera. The most conspicuous diagnostic feature of T. arctica, an asymmetrical and tilted hypertrophy of the distal tube opening in circum-flagellar coccoliths, was hinted at in the first description of the taxon. However, focus was here on the overall similarity between T. borealis and T. arctica to the extent that the rather conspicuous difference between the
two taxa was not clearly recognized by the authors of the taxon, nor by any researcher who has worked on these species since then. We present here material of *T. arctica* from various Arctic locations (West Greenland, NE Greenland, Svalbard) that completely matches the type material from Resolute Bay, Cornwallis Island. This material additionally comprised (NE Greenland) large numbers of combination coccospheres that clearly indicate that *T. arctica* shares a life history with an as yet undescribed species of *Papposphaera*. This allows us to emend the description of *T. arctica* including also its heterococcolithophore phase, and in this context making use of the combination *P. arctica* which was established decades ago, yet here with the specific comment that *P. sarion* is no longer a valid synonym of *P. arctica*.

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The re-examination of the lightly calcified Arctic coccolithophore species, Papposphaera sagittifera, has some inherent challenges due to the research history on this taxon. It is thus obvious in retrospect that the species description based on just a single specimen does not adequately account for the true identity of this taxon. Today we are aware of the existence of at least three species of Papposphaera that have basically the same calyx design while being differentiated based on patterns of central area calcification. In order to remedy this we emend here the description of P. sagittifera and provide an epitype for the species. When realizing that species pairs of Papposphaera and Turrisphaera share a life history, the new combination, P. borealis, was established to accommodate P. sagittifera and T. borealis. However, it turns out that 'sagittifera' is in fact the senior epithet by a few months, which means that the correct name for the species is P. sagittifera with T. borealis added as a synonym. While the P. sagittifera HET and HOL morphological variability across Arctic sites clearly leaves the impression of a single, fairly well defined species, the situation is different with respect to the occurrence of P. sagittifera in Antarctic waters. While there are obvious similarities between P. sagittifera HET across the Polar Regions there are also subtle differences, and most importantly it has been found that the Antarctic P. sagittifera shares a life history with a species of Turrisphaera that is markedly different from T. borealis. While awaiting molecular evidence the Antarctic material is tentatively referred to as P. sagittifera cfr.
Coccolithophores in Polar Waters: Papposphaera sarion HET and HOL revisited

Papposphaera sarion was first described from West Greenland waters and has not since then been reported from other sites. We present here additional material of P. sarion from the type locality, transmission electron images of P. sarion from the NEW polynya (NE Greenland) and scanning electron images from Svalbard. Study of a vastly extended source of images provides new morphological data, particularly on the variability of coccolith central area calcification in this species. Combination coccospheres involving a Turrisphaera sp. were frequently observed in samples from the NEWpolynya as was also the holococcolithophore Turrisphaera phase of this species. Papposphaera sarion has in its life-cycle previously been associated with Turrisphaera arctica. However, a careful re-examination of the micrographs accompanying the description of T. arctica and unpublished material available to us clearly reveals that T. arctica combines with a different, but as yet undescribed species of Papposphaera. A striking similarity is pointed out between P. sarion HET and species of Stradnerlithus, e.g. Stradnerlithus fragilis from the middle Jurassic.
Formonsella pyramidosa (Haptophyta, Papposphaeraceae): A new weakly calcified coccolithophore genus from warm-water regions

A new species Formonsella pyramidosa gen. et sp. nov. is described to accommodate a widely distributed warm-water coccolithophore species that has previously been referred to as Pappomonas sp. 2. Formonsella differs from Pappomonas with respect to, in particular, the detailed structure of the rim on both calicate and non-calicate coccoliths. In Formonsella the rim comprises two cycles of rod-shaped elements. Although elements in the distal layer are higher at one end, giving this cycle a serrate outline, the overall appearance is very different from the Pappomonas rim which encompasses a distal cycle of pentagonal elements, giving the rim a very distinct toothed appearance. Inverted rectangular pyramidal structures terminate the calicate F. pyramidosa coccoliths. In non-calicate coccoliths the central area calcification comprises differently sized tile-shaped elements, mostly arranged along the longitudinal axis in a rather irregular way.

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Observations on the morphological diversity and distribution of two siliceous nannoplankton genera, Hyalolithus and Petasaria

Scale-bearing siliceous nannoplankton are occasionally encountered in surface seawater samples, but are rarely identified or illustrated. In this study, the morphological diversity of the haptophyte Hyalolithus neolepis and the enigmatic Petasaria heterolepis are investigated in scanning and transmission electron microscopes using materials from around the world.

Results show that H. neolepis scales exhibit variation in the width of the marginal hyaline area, but intermediate specimens make separation of the two morphologies difficult. Petasaria heterolepis scales also show differences, in the presence of tubercle rows in the hyaline area and degree of hyaline areal coverage, but separation into discrete varieties is difficult at present. However, specimens with scales bearing a protuberance are considered to be distinct enough to warrant the erection of a new species, Petasaria protuberans Jordan, Malinverno, Šupraha, Thomsen et Young sp. nov.

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Papposphaera heldalii sp nov (Haptophyta, Papposphaeraceae) from Svalbard

In an attempt to establish a taxonomy for the polar contingent of lightly calcified coccolithophores, we are currently dealing with species of Papposphaera. Here we describe a new species, Papposphaera heldalii sp. nov., based on material from Svalbard. The species is unique in terms of calyx design, which is an elegant modification of the standard P. sagittifera theme, and also in terms of the absence of central area calcification in body coccoliths. The species thus occupies a further step in a sequence of five Arctic forms ranging from P. sagittifera via P. sarion, P. arctica and P. iugifera to P. heldalii showing a gradual reduction of central area calcification in body coccoliths. P. heldalii is unique also in the sense that the species has not been found during any of the major Arctic TEM nanoplankton surveys conducted during the last decades.
Papposphaera iugifera nov. sp. from West Greenland, Svalbard, and the Baltic Sea

We are currently revisiting coccolithophore genera and species described from high latitudes in both hemispheres, and also in the process describing new taxa when appropriate, with the aim of providing the best possible framework for polar species segregation based on external morphological features only. The present paper thus introduces Papposphaera iugifera nov. sp. from West Greenland (Disko - type locality), Svalbard (Isfjorden) and the Baltic Sea (Bothnian Sea). P. iugifera is clearly related to P. sagittifera, P. sarion and P. arctica and forms with these a continuum of species that are, with the exception of P. sarion, on the one hand much similar with respect to caliculate spine details, while on the other hand clearly differentiated with respect to the complexity of central area calcification. While this is extensive in P. sagittifera it is reduced to just a single transverse bar or even completely absent in P. iugifera.

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Scopus rating (2003): SJR 0.379 SNIP 0.617
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Papposphaera obpyramidalis (Haptophyta, Papposphaeraceae): New findings from both Polar Regions

Papposphaera obpyramidalis is reinvestigated based on additional high latitude sampling from the southern hemisphere. The material used here comprises better preserved transmission electron microscope (TEM) material including several cells with complete flagellation, as well as light microscopy (LM) of living material. The re-examination basically confirms the findings that were part of the species description but also adds details on, for example, nutritional mode and the presence of an underlayer of unmineralized scales. P. obpyramidalis has hitherto been considered confined to Antarctic waters. However, here we present also findings of the species from Arctic realms based on recent SEM surveys from the Svalbard region, indicating a bipolar distribution.

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BFI (2008): BFI-level 1
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Scopus rating (2007): SJR 0.395 SNIP 0.593
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Scopus rating (2005): SJR 0.581 SNIP 1.13
Scopus rating (2004): SJR 0.527 SNIP 1.029
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Scopus rating (2002): SJR 0.53 SNIP 0.628
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Seasonal occurrence of Loricate Choanoflagellates in Danish inner waters

It is a trend in loricate choanoflagellate research that our knowledge of species diversity is insufficient in terms of understanding annual successional changes at any specific locality, whereas there is a fairly decent coverage worldwide – at least in more coastal realms – in terms of biodiversity within more narrowly defined time windows. To help address this knowledge gap, we have compiled all available loricate choanoflagellate occurrence data from Danish sampling sites covering an overall time span of close to four decades. The close to 100 samples analysed have a good annual coverage and they encompass in total more than 50 species. We demonstrate clear successional trends among well-defined clusters of species. A large contingent of ‘non-native’ species, which are in a global context largely considered part of the loricate choanoflagellate warm water community, occurred in September 2014 samples from the Baltic Sea entrance, i.e. the Sound between Denmark and Sweden. While the occurrence of these species is likely due to a large inflow of southern Atlantic water, we also discuss whether the findings may instead reflect recent and more permanent climate change-induced alterations to choanoflagellate biodiversity in inner Danish waters.
Baltic Sea coccolithophores - an overview of findings from the last decades

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Coccolithophorids in polar waters: Mercedesia gen. nov., Ericiolus, Quaternariella and Porsildia gen.nov.

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Coccolithophorids in polar waters: Trigonaspis spp. revisited

A group of weakly calcified coccolithophorid genera and species were described from polar regions several decades ago. In the interim period a few additional findings have been reported adding to the morphological and biogeographical databases of some of the species. The holococcolithophorid genus Trigonaspis is revisited here with the purpose of providing, based on additional sampling from both polar regions, an update on species morphology, life history aspects and biogeography. The genus Trigonaspis as currently circumscribed comprises four taxa – two from each polar region. The triangular plates of crystallites that cover the surfaces of both the tower-shaped flagellar pole coccoliths and the disc-shaped body coccoliths are the keystone features of the genus. Circumstantial evidence exists linking species of Trigonaspis with species of Pappomonas in haploid-diploid life cycles.
Ventimolina stellata gen. et sp. nov. (Haptophyta, Papposphaeraceae) from warm water regions

It has been known for some time that the distinctive polar weakly calcified coccolithophores are also present in samples from lower latitudes. While polar species may actually have a geographic range that vastly extends beyond the polar realms, it
is often the case
that the warm water regions contribute species that can be allocated to genera previously described based on polar
material. We are currently
in the process of formally dealing with the warm water species diversity affiliated with the family Papposphaeraceae. In
this paper we
describe a new genus and species Ventimolina stellata based on material from the Andaman Sea (type locality) and the
NW Mediterranean

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Scopus rating (2009): SJR 0.506 SNIP 0.786
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.489 SNIP 0.569
Scopus rating (2007): SJR 0.933 SNIP 0.831
Scopus rating (2006): SJR 0.721 SNIP 0.805
Scopus rating (2005): SJR 0.642 SNIP 1.154
Scopus rating (2004): SJR 0.49 SNIP 1.11
Scopus rating (2003): SJR 0.445 SNIP 0.902
Scopus rating (2002): SJR 0.257 SNIP 0.505
Scopus rating (2001): SJR 0.648 SNIP 0.782
The genus Calciarcus is revisited here with the purpose of providing, based on additional sampling from both polar regions, an update on species diversity and morphology that can serve as a reference for future work. The geographic realm of the genus is significantly widened and a case is built based on consistency in appearance in favour of adding Calciarcus spp. to the well-defined community of bipolar weakly calcified coccolithophorid genera. Despite the multitude of specimens available for analysis and the fact that the specimens examined distribute themselves within three clusters based on morphological features of coccolith superstructures, it has not been possible at this stage to define a robust framework for differentiation among species of Calciarcus. Circumstantial evidence exist linking species of Wigwamma with species of Calciarcus in haploid-diploid life cycles.
Coccolithophorids in polar waters: Pappomonas spp. revisited

A contingent of weakly calcified coccolithophorid genera and species were described from polar regions almost 40 years ago. In the interim period a few additional findings have been reported enlarging the realm of some of the species. The genus Pappomonas is revisited here with the purpose of providing, based on additional sampling from both polar regions, an update on species morphology, life history aspects and biogeography that can serve as a reference for the future. The examination of a substantial number of cells unequivocally supports the elevation to species level of P. borealis stat. nov. (previously referred to as P. fabellifera var. borealis) as a separate taxon which is different from P. fabellifera in a number of critical morphological features. Additional evidence in favour of linking P. virgulosa and Balaniger balticus in a shared life history in combination with significant differences in coccolith morphology between the Pappomonas type species (P. fabellifera) and P. virgulosa has prompted us to synonymise Balaniger balticus with Pappomonas virgulosa, while informally keeping the names of the phases as Balaniger virgulosa HET (= Pappomonas virgulosa phase) and Balaniger virgulosa HOL (= Balaniger balticus phase). A new species, Pappomonas garrisonii sp. nov. is described to accommodate Antarctic material from the Weddell Sea. While fitting into the Pappomonas generic concept, the species adds new dimensions to the overall appearance of the coccolith armour of the cell and emphasizes the close relationship between species of Pappomonas and Papposphaera.
Coccolithophorids in polar waters: Wigwamma spp. revisited
A contingent of weakly calcified coccolithophorid genera and species were described from polar regions almost 40 years ago. In the interim period a few additional findings have been reported enlarging the realm of some of the species. The genus Wigwamma is revisited here with the purpose of providing, based on additional sampling from both polar regions, an update on species morphology, life history events and biogeography that can serve as a reference for the future. A new genus, Pseudowigwamma gen. nov. is described to accommodate Wigwamma scenozonion, a species which critically deviates from a core group of five Wigwamma species in terms of coccolith morphology and life history events. Wigwamma armatura sp. nov. is described on the basis of material from the Weddell Sea, Antarctica. While fitting nicely into the Wigwamma generic concept, the species adds new dimensions to the overall appearance of the coccolith armour of the cell.
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.754 SNIP 0.959 CiteScore 1.61
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.498 SNIP 0.526 CiteScore 0.98
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.458 SNIP 0.507 CiteScore 1.17
ISI indexed (2014): ISI indexed yes
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.294 SNIP 0.44 CiteScore 0.82
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.721 SNIP 0.745 CiteScore 1.41
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2010): SJR 0.533 SNIP 0.577
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.506 SNIP 0.786
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.489 SNIP 0.569
Scopus rating (2007): SJR 0.933 SNIP 0.831
Scopus rating (2006): SJR 0.721 SNIP 0.805
Scopus rating (2005): SJR 0.642 SNIP 1.154
Scopus rating (2004): SJR 0.49 SNIP 1.11
Scopus rating (2003): SJR 0.445 SNIP 0.902
Scopus rating (2002): SJR 0.257 SNIP 0.505
Scopus rating (2001): SJR 0.648 SNIP 0.782
Scopus rating (2000): SJR 0.443 SNIP 0.639
Scopus rating (1999): SJR 0.348 SNIP 0.44

Original language: English
Electronic versions:

DOIs:
10.4467/16890027AP.13.021.1118

Publication: Research - peer-review › Journal article – Annual report year: 2014

Nye optiske instrumenter ved Danmarks Fiskerundersøgelser

General information
State: Published
Organisations: Section for Ocean Ecology and Climate, National Institute of Aquatic Resources, Institute Management
Authors: Jakobsen, H. H. (Intern), Thomsen, H. A. (Intern), Visser, A. (Intern), Kiørboe, T. (Intern)
Pages: 1-2
Publication date: 2007

Host publication information
Title of host publication: 14. danske havforskermøde, Syddansk Universitet, 23-25 januar 2007
Telonemia, a new protist phylum with affinity to chromist lineages

Recent molecular investigations of marine samples taken from different environments, including tropical, temperate and polar areas, as well as deep thermal vents, have revealed an unexpectedly high diversity of protists, some of them forming deep-branching clades within important lineages, such as the alveolates and heterokonts. Using the same approach on coastal samples, we have identified a novel group of protist small subunit (SSU) rDNA sequences that do not correspond to any phylogenetic group previously identified. Comparison with other sequences obtained from cultures of heterotrophic protists showed that the environmental sequences grouped together with Telonema, a genus known since 1913 but of uncertain taxonomic affinity. Phylogenetic analyses using four genes (SSU, Hsp90, alpha-tubulin and beta-tubulin), and accounting for gamma- and covarion-distributed substitution rates, revealed Telonema as a distinct group of species branching off close to chromist lineages. Consistent with these gene trees, Telonema possesses ultrastructures revealing both the distinctness of the group and the evolutionary affinity to chromist groups. Altogether, the data suggest that Telonema constitutes a new eukaryotic phylum, here defined as Telonemia, possibly representing a key clade for the understanding of the early evolution of bikont protist groups, such as the proposed chromalveolate supergroup.
Telonema antarcticum sp. nov., a common marine phagotrophic flagellate

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources
Pages: 2595-2604
Publication information

Journal: International Journal of Systematic and Evolutionary Microbiology
Volume: 55
ISSN (Print): 1466-5026
Ratings:

BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.858 SNIP 1.171 CiteScore 2.22
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.073 SNIP 1.486 CiteScore 2.74
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.934 SNIP 1.171 CiteScore 2.42
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.067 SNIP 1.201 CiteScore 1.96
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.09 SNIP 1.352 CiteScore 2.2
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.043 SNIP 1.191
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.939 SNIP 1.249
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.051 SNIP 1.336
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.111 SNIP 1.582
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 1.361 SNIP 1.549
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 1.534 SNIP 1.578
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 1.902 SNIP 1.855
Scopus rating (2003): SJR 1.781 SNIP 1.815
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 1.81 SNIP 1.735
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 1.798 SNIP 1.646
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 1.923 SNIP 1.957
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 2.224 SNIP 1.968
Original language: English
The linkage between frontal hydrography and distributional patterns of meso-zooplankton and fish larvae

General information
State: Published
Organisations: Section for Ocean Ecology and Climate, National Institute of Aquatic Resources, Institute Management, Section for Management Systems
Authors: Munk, P. (Intern), Jonasdottir, S. (Intern), Thomsen, H. A. (Intern), Diekmann, R. (Intern)
Pages: 1
Publication date: 2005
Main Research Area: Technical/natural sciences

Publication information
Journal: ICES Council Meeting
ISSN (Print): 1015-4744
Ratings: ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Web of Science (2003): Indexed yes
Original language: English
Source-ID: 226242
Publication: Research › Journal article – Annual report year: 2005

Assemblages of fish larvae and mesozooplankton across the continental shelf and shelf slope of the Andaman Sea (NE Indian Ocean)
We studied the cross-shelf variation in hydrography and plankton dynamics off west Thailand, focusing on physical-biological linkages. The overall research programme investigated linkages between physics, chemistry and plankton biology; in the present paper we consider the findings based on the sampling of fish larvae and mesozooplankton. Surveys were carried out during 2 monsoon periods in March and August 1996, using 3 cross-bathymetric transects extending to the deeper part of the shelf slope of the Andaman Sea. Station distances were either 5 or 10 n miles apart, and at each station a series of net tows were carried out, targeting different size ranges of organisms. Plankton were identified to order (invertebrates) or family (fish larvae), and their abundances and biomass estimated. The abundance of both mesozooplankton and fish larvae peaked mid-shelf (50 to 65 m bottom depth) coinciding with a hydrographic front generated where the pycnocline meets the sea-bottom. An internal wave of pronounced amplitude interacts with the shelf slope at ca. 300 m bottom depth, and findings indicated another zone of enhanced abundance in this area. Analysis of the relative abundances of fish larvae within families revealed a marked cross-shelf structuring into a number of larval assemblages. Distinct assemblages were identified in nearshore areas, at mid-shelf in the area of the hydrographic front, and off the shelf break in oceanic water. Less pronounced variation was seen in the along-shelf direction and between monsoon periods.

General information
State: Published
Organisations: Section for Ocean Ecology and Climate, National Institute of Aquatic Resources, Institute Management
Authors: Munk, P. (Intern), Bjørnsen, P. K. (Ekstern), Boonruang, P. (Ekstern), Fryd, M. (Ekstern), Hansen, P. (Ekstern), Janekarn, V. (Ekstern), Limtrakulvong, V. (Ekstern), Nielsen, T. G. (Intern), Hansen, O. (Ekstern), Satapoomin, S. (Ekstern), Sawangarreruks, S. (Ekstern), Thomsen, H. A. (Intern), Østergaard, J. (Ekstern)
Pages: 87-97
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information
Journal: Marine Ecology - Progress Series
Volume: 274
ISSN (Print): 0171-8630
Ratings:
Dansk dambrug ved en skillevej

General information
Hydrography, bacteria and protist communities across the continental shelf and shelf slope of the Andaman Sea (NE Indian Ocean)

The hydrography and plankton community structure was investigated in the Andaman Sea off Phuket, Thailand. Two cruises were conducted in 1996, one representing the calm dry NE monsoon season (March) and the other representing the stormy and rainy SW monsoon season (August). Sampling was performed along 3 transects perpendicular to the shelf break, from the coast across the shelf into deep water. The water column at the nearshore stations was vertically mixed, while the water column at offshore stations was strongly stratified, hence a frontal zone was established at the mid shelf. A prominent feature of the area was the pronounced internal wave centred around the pycnocline. The wave was observed from the outermost stations to the mid-shelf front. The height of the wave reached peak values of approximately 60 m in areas of approximately 300 m bottom depth. At all stations in stratified waters the vertical distribution of the phytoplankton showed a pronounced subsurface chl a peak in association with the pycnocline. The highest chl a values and primary production was observed at the front established at the mid shelf where the pycnocline meets the bottom, and salt nutrient-rich water is mixed up in the surface layer. We did not find any relationships between hydrography and the other key components of the microbial food web. No difference in productivity or food web structure was observed between the 2 seasons despite a significant difference in climatic forcing. Pico- and nanoplanckton dominated the biomass in both seasons and Synechococcus contributed 72 to 74 % of the biomass. Analysis of the microbial food web and establishment of carbon-flow budgets illustrates the importance of the microbial food web for making the primary producers available to the higher trophic levels.
Spatial and temporal variability of the phytoplankton community structure in the North Water Polynya, investigated using pigment biomarkers

Phytoplankton taxonomic pigments were measured by high-performance liquid chromatography (HPLC) during a 3-month survey (April-June 1998) in the North Water (NOW) Polynya (Canadian Arctic) to investigate changes in phytoplankton biomass and composition and the physical-chemical factors that influence these changes. A phytoplankton bloom with high chlorophyll a (Chl a) concentrations (up to 17.45 mg.(m(-3)) at 15 m) occurred in mid-May along the Greenland coast in the southeastern part of the NOW Polynya. The initiation of the phytoplankton bloom was linked to shallow mixed-layer depths. The contribution of the different phytoplankton groups to Chl a inferred using a factorization program (CHEMTAX) indicated that the bloom was diatom-dominated (maximum 94% diatoms). The phytoplankton community structure was influenced by the water mass characteristics and the surface circulation pattern. Autotrophic flagellates dominated in April and May along the Canadian coast, where cold Arctic waters with relatively deep mixed layers were found. In contrast, diatoms dominated in May along the Greenland coast in warmer water masses of Atlantic origin and during June in the whole polynya, except in the southernmost part.
Changes in plankton and fish larvae communities across hydrographic fronts off West Greenland

General information
State: Published
Organisations: Section for Ocean Ecology and Climate, National Institute of Aquatic Resources, Institute Management
Authors: Munk, P. (Intern), Hansen, B. (Ekstern), Nielsen, T. G. (Intern), Thomsen, H. A. (Intern)
Pages: 815-830
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Plankton Research
Volume: 25
Issue number: 7
ISSN (Print): 0142-7873
Ratings:
BFI (2018): BFI-level 1
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
Taxonomy of toxic haptophytes (prymnesiophytes)

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Number of pages: 793
Pages: 433-463
Publication date: 2003

Host publication information
Title of host publication: Manual on Harmful Marine Microalgae
Publisher: UNESCO
Editors: Hallegraeff, G., Anderson, D., Cembella, A.
ISBN (Print): 9231038710
Series: Monographs on Oceanographic Methodology Series
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278784
Publication: Research - peer-review › Book chapter – Annual report year: 2003

Udvalget om Miljøpåvirkninger og fiskeriressourcer : Delrapport vedr. eutrofiering
Order 1. Choanoflagellida Kent, 1880

Life history stages of Pyramimonas tychotreta (Prasinophyceae, Chlorophyta), a marine flagellate from the Ross Sea, Antarctica

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources
Authors: Leadbeater, B. (Ekstern), Thomsen, H. A. (Intern)
Publication date: 2001
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 226429
Publication: Research - peer-review › Book chapter – Annual report year: 2001

Publication information
Journal: Phycological Research
Volume: 48
Issue number: 3
ISSN (Print): 1322-0829
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
The 1998 Danish-German Excursion to Disko Island, West Greenland

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources
Authors: Thomsen, H. A. (Intern), Brandt, A. (Ekstern)
Pages: 1-10
Publication date: 1999

Host publication information
Title of host publication: The 1998 Danish-German Excursion to Disko Island, West Greenland
Volume: 1
Place of publication: Bremerhaven
Publisher: Alfred Wegener Institut für Polar und Meeresforschung
Editors: Brandt, A., Thomsen, H., Heide-Jørgensen, M., Kristensen, R., Ruhberg, H.

Series: Berichte zur Polarforschung
Number: 330
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 227658
Publication: Research › Book chapter – Annual report year: 1999
The 1998 Danish-German Excursion to Disko Island, West Greenland

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources
Authors: Brandt, A. (Ekstern), Thomsen, H. A. (Intern), Heide-Jørgensen, M. (Ekstern), Kristensen, R. (Ekstern), Ruhberg, H. (Ekstern)
Number of pages: 184
Publication date: 1999

Publication information
Place of publication: Bremerhaven
Publisher: Alfred Wegener Institut für Polar und Meeresforschung
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 224983
Publication: Research - peer-review › Book – Annual report year: 1999

Infiltration phyto- and protozooplankton assemblages in the annual sea-ice of Disko Island, West Greenland, Spring 1996

General information
State: Published
Organisations: Monterey Bay Aquarium Research Institute, Roskilde University, National Environmental Research Institute, University of Copenhagen
Authors: Buck, K. R. (Ekstern), Nielsen, T. G. (Intern), Hansen, B. W. (Ekstern), Gastrup-Hansen, D. (Ekstern), Thomsen, H. A. (Intern)
Pages: 377-381
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Polar Biology
Volume: 20
ISSN (Print): 0722-4060
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.931 SNIP 0.81 CiteScore 1.75
Web of Science (2014): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.109 SNIP 1.054 CiteScore 2.07
Web of Science (2013): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2013): SJR 1.029 SNIP 0.891 CiteScore 1.89
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2011): SJR 0.857 SNIP 0.925 CiteScore 1.77
Nanoflagellates of East Pacific coastal waters: Morphology, taxonomy, and biogeography of weakly calcified coccolithophorids (Prymnesiophyceae)

A transmission electronmicroscopical examination of whole mounts of cells prepared from samples collected off central California, September 1989, from the Sea of Cortez, (Mexico), January 1990, and from San Juan Islands, Washington, August 1983, has led to the identification of 7 taxa of weakly calcified nanoflagellates, the majority of which are related to forms which have their main distribution in polar regions.
Nanoflagellates of the central California waters: taxonomy, biogeography and abundance of primitive, green flagellates (Pedinophyceae, Prasinophyceae)

Examination of whole mounts of cells prepared from samples collected off central California, September 1989, has led to the identification of 14 taxa of primitive green nanoflagellates from the Pedinophyceae (1 species) and the Prasinophyceae (13 species). Three of the prasinophyte taxa are new to science. The finding of these new taxa, provisionally identified as Prasinophyte “Point Sur” sp. 1, 2, 3, is important because it emphasizes the persistent, overall lack of knowledge of prasinophyte biodiversity, and also because these forms combine prasinophycean features in a unique way that ultimately may question the currently accepted taxonomic system. The abundance estimates suggest that prasinophytes are most numerous in coastal waters and are relatively absent from oceanic regimes.

General information
State: Published
Organisations: Monterey Bay Aquarium Research Institute, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Buck, K. R. (Ekstern)
Pages: 1687-1707
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Volume: 45
Issue number: 8-9
ISSN (Print): 0967-0645
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 2.35 SJR 1.335 SNIP 0.962
BFI (2015): BFI-level 1
Choanoflagellates (Acanthoecidae, Choanoflagellida) from the Weddell Sea, Antarctica, taxonomy and community structure with particular emphasis on the ice biota; with preliminary remarks on choanoflagellates from Arctic Sea Ice (Northeast Water Polynya, Greenland)

Ice biota studies in the Antarctic region, Weddell Sea, have focused on an examination of single cells and an analysis of community structure of the flagellate assemblage from sea ice and comparisons with planktonic assemblages. Based on extensive light microscopical analysis of 40 samples ranging from open water to "brown-ice" habitats, it became evident through clustering of the data, that the mature choanoflagellate community from ice is significantly different from both the water column community and those encountered in samples derived from newly formed ice (i.e. grease ice, platelet ice, nilas and thin pancakes). The choanoflagellates from sea ice encompasses a range of previously undescribed loricate taxa (Acanthocorbis nana sp. nov., A. weddellensis sp. nov., A. prolongata sp. nov., Apheloecion antarctica sp. nov., A. glacialis sp. nov., A. conicoides sp. nov., Calliacantha frigida sp. nov., C. ankyra sp. nov., Diaphanoeca multiannulata subsp. nov. glacialis, Parvicorbicula corynocostata sp. nov., P. pachycostata sp. nov.). These taxa have been investigated using a combination of light, and electron microscopy. A preliminary investigation of samples from the Arctic (NE Greenland) indicates that the loricate choanoflagellate diversity is significantly lower in Arctic sea ice.
Species of Thaumatomastix (Thaumatomastigidae, Protista incertae sedis) from the Arctic sea ice biota (North-East Water Polynya, NE Greenland)

The sea ice biota of polar regions contains numerous heterotrophic flagellates very few of which have been properly identified. The whole mount technique for transmission electron microscopy enables the identification of loricate and scaly forms. A survey of Arctic ice samples (North-East Water Polynya, NE Greenland) revealed the presence of ca. 12 taxa belonging to the phagotrophic genus Thaumatomastix (Protista incertae sedis). Species of Thaumatomastix possess siliceous body scales and one naked and one scale-covered flagellum. The presence in both Arctic samples and sea ice material previously examined from the Antarctic indicates that this genus is most likely ubiquitous in polar sea ice and may be an important component in sea ice biota microbial activities.
The Baltic Sea ice biota (March 1994): A study of the protistan community

The diversity of the protist communities of the water column and ice along the Finnish coast of the Baltic Sea was studied during March 1994. The preliminary identification of the organisms was made light microscopically on live material, while further identification of e.g. scale-bearing flagellates was based on whole mounts using light and electron microscopy. The ice biota and the winter plankton was dominated by diatoms. Other abundant groups were choanoflagellates, chrysophytes, chlorophytes, dinoflagellates and protists of uncertain affinity. The highest brine salinities (up to 30 permill) and the most diverse ice biota were found at two stations in the Bothnian Bay, where the number of recorded taxa was 71 and 74. In the water column the numbers were much lower (34 and 42). In the Bothnian Sea and along the southern coast of Finland the ice biota was less diverse, and the number of protist taxa ranged from 21 to 47. A few taxa showed a special preference for the ice habitat. New distribution records to the Baltic Sea are Navicula pelagica (Bacillariophyceae), Cryothecomonas armigera (Protiota incertae sedis), and the genus Polytomella (Chlorophyceae). The abundance and vertical distribution of C. armigera, other flagellates, Monoraphidium contortum (Chlorophyceae), and diatoms in the ice at station I was studied using inverted light microscopy and sedimentation chambers. M. contortum was found to be the cause of a distinct green colouration of the ice. With the exception of C. armigera, all other protist taxa formed well-defined maxima within the ice interior. The number of cells in such abundance peaks varied from approximately 2.5 times 10^{-5} M. contortum cells l^{-1} to 2 times 10^{-6} diatoms l^{-1} of melted sea ice.
Tyge Christensen (1918-1996) - In memoriam

General information
State: Published
Organisations: University of Copenhagen
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Pages: 2-5
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication Information
Journal: PHYCOLOGIA
Volume: 36
Issue number: 1
ISSN (Print): 0031-8884
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
A preliminary study of NE Greenland shallow meltwater ponds with particular emphasis on loricate and scale-covered forms (Choanoflagellida, Chrysophyceae sensu lato, Synurophyceae, Heliozoa), including the descriptions of Epipyxis thamnoides sp. nov. and Pseudokephyrion poculiforme sp. nov. (Chrysophyceae)

The biodiversity of five shallow freshwater and slightly brackish ponds (North East Greenland; 79-81 degree N) has been studied with particular emphasis on taxonomical and ecological aspects of loricate and scale-covered forms, i.e. choanoflagellates, chrysophytes and heliozoans. The material was collected in July 1993 as part of the IAAP Northeast Water (NEW) Polynya programme and represents the northernmost freshwater and brackish localities analyzed using electronmicroscopical techniques. Morphometric data and physical, chemical and biological parameters (pH, temperature, salinity, nutrients, chlorophyll-alpha) are provided for all ponds sampled. The light- and electronmicroscopical examination of samples revealed 2 choanoflagellates, 14 chrysophytes and 7 heliozoan taxa. Seven species are recorded from Greenland for the first time and two species are considered new to science, viz. Epipyxis thamnoides and Pseudokephyrion poculiforme. A crucial difference was observed on the one hand between the single land pond (location 33) characterized by high diversity and high biomass, and on the other the glacier and the ice floe melt ponds characterized by low diversity and low biomass. Biogeographically the community sampled displays significant similarities with localities previously investigated within the Greenland and northern Canadian region.

General information
State: Published
Organisations: University of Copenhagen
Authors: Ikavalko, J. (Ekstern), Thomsen, H. A. (Intern), Carstens, M. (Ekstern)
Pages: 29-42
Publication date: 1996
Main Research Area: Technical/natural sciences
Scale-covered and loricate flagellates (Chrysophyceae and Synurophyceae) from Baltic Sea ice

The protistan communities living in the brine channels of Baltic Sea ice have been studied with particular emphasis on scale-covered flagellates (Chrysophyceae and Synurophyceae). Water column, brine, and ice core samples were obtained during a cruise along the Finnish coast in March 1994. The material was examined by means of light microscopy of live cells and transmission electron microscopy of whole mounts. The most conspicuous and numerous scale-covered chrysophytes were complete cells of several species of Paraphysomonas. The material additionally comprised loricate chrysophyte taxa and detached scales of Synurophycean genera. The finding of loose scales of several freshwater taxa indicates that a significant amount of material from land is incorporated into Baltic Sea ice. This paper comments on the ecology and geographical distribution of species encountered as complete cells in ice samples. Measured environmental variables comprise temperature, pH and salinity.

General information
State: Published
Organisations: Unknown
Authors: Ikavalko, J. (Ekstern), Thomsen, H. A. (Intern)
Pages: 147-160
Publication date: 1996
Main Research Area: Technical/natural sciences
Ericiolus gen. nov. (Prymnesiophyceae), a new coccolithophorid genus from polar and temperate regions

During late August 1985, a significant coccolithophorid contribution to phytoplankton biomass and diversity was evident in the inner Danish waters of the southern Kattegat and the Isefjord. The material included new taxa, one of which, Ericiolus spiculiger gen. et sp. nov., is now formally described together with a second, Antarctic species from the same genus, E. frigidus sp. nov. The genus comprises small, apparently heterotrophic species with a single type of calcified structure reminiscent of caltrops.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), De Place Bjørn, P. (Ekstern), Højlund, L. (Ekstern), Olesen, J. (Ekstern), Pedersen, J. B. (Ekstern)
Pages: 29-34
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: European Journal of Phycology
Volume: 30
Issue number: 1
ISSN (Print): 0967-0262
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.745 SNIP 0.944 CiteScore 2.2
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.91 SNIP 0.954 CiteScore 2.18
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.764 SNIP 0.949 CiteScore 1.85
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.82 SNIP 1.116 CiteScore 1.92
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.839 SNIP 0.844 CiteScore 1.88
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.184 SNIP 1.283 CiteScore 2.16
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.911 SNIP 0.731
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.81 SNIP 0.777
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.921 SNIP 1.074
Scopus rating (2007): SJR 0.809 SNIP 0.943
Scopus rating (2006): SJR 1.15 SNIP 1.076
Scopus rating (2005): SJR 1.318 SNIP 1.338
Scopus rating (2004): SJR 1.65 SNIP 1.285
Scopus rating (2003): SJR 0.957 SNIP 1.034
Scopus rating (2002): SJR 0.901 SNIP 1.014
Scopus rating (2001): SJR 0.887 SNIP 0.974
Scopus rating (2000): SJR 1.116 SNIP 1.189
Scopus rating (1999): SJR 1.08 SNIP 1.07
Loricate Choanoflagellates from West Greenland (August 1988) including the description of Spinoeca buckii gen. et sp. nov.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Østergaard, J. B. (Ekstern), Hansen, L. E. (Ekstern)
Pages: 38
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: European Journal of Protistology
Volume: 31
Issue number: 1
ISSN (Print): 0932-4739
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.545 SNIP 0.817 CiteScore 1.76
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.916 SNIP 0.903 CiteScore 2.23
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.333 SNIP 1.085 CiteScore 2.38
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.835 SNIP 1.128 CiteScore 2.16
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.499 SNIP 0.692 CiteScore 1.32
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.136 SNIP 0.992 CiteScore 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.029 SNIP 1.235
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.72 SNIP 1.184
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.474 SNIP 0.588
Scopus rating (2007): SJR 0.8 SNIP 0.96
Scopus rating (2006): SJR 1.092 SNIP 1.14
Scopus rating (2005): SJR 0.837 SNIP 0.759
Scopus rating (2004): SJR 0.606 SNIP 0.691
Scopus rating (2003): SJR 0.536 SNIP 0.738
Scopus rating (2002): SJR 0.628 SNIP 0.965
Scopus rating (2001): SJR 0.644 SNIP 0.767
Scopus rating (2000): SJR 0.541 SNIP 0.817
Scopus rating (1999): SJR 0.733 SNIP 0.816

Original language: English
Source: orbit
Nanoplankton of the equatorial Pacific with emphasis on the heterotrophic protists

In the equatorial Pacific during the boreal spring of 1992, nanoplankton, represented by chrysophytes, dinoflagellates, amoebae, choanoflagellates, naked flagellates and ciliates, dominated the heterotrophic protistan biomass. The heterotrophs, other than the dinoflagellates and ciliates, were represented by amoebae and flagellates at a mean (±SD) density and biomass of 5.85 ± 2.53 × 10^5 cells l⁻¹ and 1.76 ± 1.37 μgC l⁻¹. Fifty-two species of lobose amoebae, apusomonads, bicosoecids, cercomonads, choanoflagellates, chrysomonads, euglenids, jakobids, kathablepharids, kinetoplastids, pedinellids and a number of taxa of uncertain position (incertae sedis taxa) were identified. The heterotrophs represent five different trophic types of organisms, defined by habitat and prey. Fifty per cent of the species identified in this study are principally associated with detritus (marine snow). The majority of free-living suspension feeders we identify in this study are choanoflagellates. Other suspension feeding planktonic taxa may not be detected using the protocols we employ. Only 42% of the species identified are obligately bacterivorous and 12% are not bacterivores at all but graze principally on algae. The remainder of heterotrophic species prey on an array of DOM, bacteria, other protists and detritus.


### Taxonomy of toxic haptophytes (Prymnesiophytes)

**General information**
- **State:** Published
- **Organisations:** Unknown
- **Authors:** Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
- **Pages:** 319-338
- **Publication date:** 1995

**Host publication information**
- **Title of host publication:** Manual on harmful marine microalgae
- **Place of publication:** Paris
- **Publisher:** UNESCO
- **Editors:** Hallegraeff, G., Anderson, D., Cembella, A.
- **Main Research Area:** Technical/natural sciences

**Source:** orbit
**Source-ID:** 278926
**Publication:** Research › Journal article – Annual report year: 1995

### Three new species of Thaumatomastix (Thaumatomastigidae, Protista incertae sedis) a ubiquitous genus from the Antarctic ice biota

Recent opportunities to sample live material from in particular the Antarctic ice biota have resulted in the discovery of numerous autotrophic and heterotrophic flagellate components of this community. In certain samples, some of these
hitherto neglected types of organisms are obviously key components of the ice biota. One such example is found in species of the heterotrophic flagellate genus Thaumatomastix (Thaumatomastigidae, Protista incertae sedis). Three new species are described (T. splendida sp. nov., T. fragilis sp. nov., and T. fusiformis sp. nov.) one of which (T. splendida) has been found to be ubiquitous in Antarctic sea ice and also most likely a significant member of the Arctic sea ice community.
A revision of the taxonomic position of Syncrypta glomerifera (Chrysophyceae), establishment of a new genus Lepidochrysis and observations on the occurrence of L. glomerifera comb. nov. in brackish water

Syncrypta glomerifera, a species originally isolated and described from a salt marsh pool in England has been recorded from brackish water in several samples from the Baltic Sea along the Finnish coast, and also from a Danish locality. Both colonial and monad forms have been studied with LM and TEM. The systematic position of the species is discussed and the new genus Lepidochrysis gen. nov. is established.

General information
State: Published
Organisations: University of Copenhagen
Authors: Ikavalko, J. (Ekstern), Kristiansen, J. (Ekstern), Thomsen, H. A. (Intern)
Pages: 339-344
Publication date: 1994
Main Research Area: Technical/natural sciences

Publication information
Journal: Nordic Journal of Botany
Volume: 14
Issue number: 3
ISSN (Print): 0107-055X
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.402 SNIP 0.739 CiteScore 0.94
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.492 SNIP 0.873 CiteScore 0.91
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.463 SNIP 0.922 CiteScore 0.97
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.428 SNIP 0.771 CiteScore 0.75
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.341 SNIP 0.564 CiteScore 0.61
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.3 SNIP 0.458 CiteScore 0.47
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.305 SNIP 0.522
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.279 SNIP 0.424
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.183 SNIP 0.404
Scopus rating (2007): SJR 0.122 SNIP 0
Scopus rating (2006): SJR 0.718 SNIP 0.178
Scopus rating (2005): SJR 0.111 SNIP 1.555
Scopus rating (2004): SJR 0.216 SNIP 5.48
Scopus rating (2003): SJR 0.111 SNIP 6.066
Scopus rating (2002): SJR 0.352 SNIP 9.859
Scopus rating (2001): SJR 0.232 SNIP 0.245
Scopus rating (2000): SJR 0.47 SNIP 1.159
Scopus rating (1999): SJR 0.557 SNIP 1.51
Original language: English
Source: orbit
Haptophytes as components of marine phytoplankton

General information
State: Published
Organisations: Monterey Bay Aquarium Research Institute, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Buck, K. (Ekstern), Chavez, F. (Ekstern)
Number of pages: 446
Pages: 187-208
Publication date: 1994

Host publication information
Title of host publication: The Haptophyte Algae
Place of publication: Oxford
Publisher: Clarendon Press
Editors: Green, J., Leadbeater, B.
ISBN (Print): 0198577729
Series: Systematics Association Special Volume
Number: 51
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278958
Publication: Research - peer-review › Book chapter – Annual report year: 1994

Haptophytes in polar waters

General information
State: Published
Organisations: Australian Antarctic Division, University of Copenhagen
Authors: Marchant, H. (Ekstern), Thomsen, H. A. (Intern)
Number of pages: 446
Pages: 209-228
Publication date: 1994

Host publication information
Title of host publication: The Haptophyte Algae
Place of publication: Oxford
Publisher: Clarendon Press
Editors: Green, J., Leadbeater, B.
ISBN (Print): 0198577729
Series: Systematics Association Special Volume
Number: 51
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278957
Publication: Research - peer-review › Book chapter – Annual report year: 1994

Autecology, life history and toxicology of the silicoflagellate Dictyocha speculum (Silicoflagellata, Dictyochophyceae)

Growth and development of cultures skeleton-bearing and naked stages of the heterokont flagellate (Dictyocha speculum Ehrenberg (Silicoflagellata, Dictyochophyceae)) were examined. The bloom-forming naked stage is easily cultivated and shows optimum growth at salinities of 15-25 permill, within a temperature range of 11-15 degree C. A maximum growth rate of 1 division/24 h was found in cultures. The skeleton-bearing stage is difficult to maintain in culture: growth is slow and dense cultures were never obtained. The salinity optimum of this stage as deduced from field data is somewhat higher than that observed for the naked stage, whereas the temperature requirements are similar. Multinucleate cells occurred in cultures of the naked stage. Cells analogous to the multinucleate cells were derived from the skeleton-bearing cells and subsequently observed to transform into naked cells. The multinucleate cells are possibly resting stages. Measurements of the DNA content of the skeleton-bearing and the naked cells showed equivalent ploidy levels in both. It has not been possible to demonstrate a toxic effect for the naked stage in laboratory experiments. Fish-kills in Denmark in 1983, associated with a bloom of D. speculum, were therefore most likely caused by the generation of anoxic conditions.
General information
State: Published
Organisations: University of Copenhagen
Authors: Henriksen, P. (Ekstern), Knipschildt, F. (Ekstern), Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Pages: 29-39
Publication date: 1993
Main Research Area: Technical/natural sciences

Publication information
Journal: Phycologia
Volume: 32
Issue number: 1
ISSN (Print): 0031-8884
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.687 SNIP 0.951 CiteScore 1.76
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.837 SNIP 0.945 CiteScore 1.71
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.871 SNIP 1.068 CiteScore 1.73
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.863 SNIP 1.206 CiteScore 1.95
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.791 SNIP 1.171 CiteScore 1.71
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.068 SNIP 1.269 CiteScore 1.6
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.778 SNIP 0.801
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.7 SNIP 0.88
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.65 SNIP 0.83
Scopus rating (2007): SJR 0.809 SNIP 0.988
Scopus rating (2006): SJR 0.944 SNIP 0.975
Scopus rating (2005): SJR 0.85 SNIP 0.926
Scopus rating (2004): SJR 1.007 SNIP 1.1
Scopus rating (2003): SJR 0.906 SNIP 1.155
Scopus rating (2002): SJR 0.887 SNIP 1.165
Scopus rating (2001): SJR 0.909 SNIP 0.989
Scopus rating (2000): SJR 0.643 SNIP 1.006
Scopus rating (1999): SJR 0.809 SNIP 0.98
Original language: English
Source: orbit
Source-ID: 278819
Publication: Research - peer-review › Journal article – Annual report year: 1993

Ecology and biology of Ice biota

General information
State: Published
Organisations: University of Copenhagen
Lennoxia faveolata, new genus new species (Diatomophyceae) from South America, California, West Greenland and Denmark

A planktonic and solitary diatom species superficially reminiscent of Nitzschia (subg. Nitzschiella) spp. has been found in marine samples from South America, central California waters, West Greenland and Denmark. Lennoxia faveolata gen. et sp. nov. is spindle-shaped with thin, extended and sometimes curved cell ends. The valve face pattern consists of a honeycomb mesh superimposed on a basal thin layer of material. A marginal structure reminiscent of a tubular process is present on at least one valve of each cell.
New observations on the heterotrophic protist genus Thaumatomastix (Thaumatomastigaceae, Protista, incertae sedis), with particular emphasis on material from the Baltic Sea

Thaumatomastix (Thaumatomastigaceae, Protista incertae sedis) is a genus of swimming or gliding heterotrophic protists sporadically reported from both marine and freshwater habitats. The cell carries two flagella, one of which is covered by scales, while the other is naked. Both flagellar scales and body scales are produced in vesicles located in close proximity to the outer membranes of the tubulocristate mitochondria. Scales are silicified. In addition to spineless, oval or triangular body scales, in most cases formed by the partial fusion of two almost equally sized plates, some species also possess species-specific spine scales. The genus at present comprises seven species. Six of these are found in samples from the brackish Baltic Sea. However, only T. salina (syn. Chrysophyllum salina) has been frequently observed in electron microscopical whole mounts. Three new species are described: Thaumatomastix spinosa sp. nov., Thaumatomastix dybsoeana sp. nov. and Thaumatomastix formosa sp. nov.

General information
State: Published
Organisations: University of Helsinki, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Hallfors, G. (Ekstern), Hallfors, S. (Ekstern), Ikavalko, J. (Ekstern)
Pages: 87-108
Publication date: 1993
Main Research Area: Technical/natural sciences

Publication information
Journal: Annales Botanici Fennici
Volume: 30
Issue number: 2
ISSN (Print): 0003-3847
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.402 SNIP 0.598 CiteScore 0.76
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.472 SNIP 0.954 CiteScore 0.96
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.458 SNIP 0.718 CiteScore 0.84
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.387 SNIP 0.736 CiteScore 0.75
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.42 SNIP 0.721 CiteScore 0.75
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Parmales (Chrysophyceae) from Mexican, Californian, Baltic, Arctic and Antarctic waters with the description of a new subspecies and several new forms

The Parmales, a recently established order of a nanoplanktonic marine chrysophytes (sensu lato) characterized by a siliceous cell wall of five or eight plates arranged in symmetrical patterns, were examined for various localities with both TEM and SEM. Triparma laevis Booth subsp. mexicana Kosman subsp. nov. is described from the Sea of Cortez, together with a cell resembling Triparma retinervis Booth. A spined variant of Triparma retinervis subsp. crenata Booth, reported earlier from the California Current, was also observed in waters off California. Baltic forms of Triparma columacea Booth with highly convex shield plates are identical to forms described from the North Pacific. In addition to six formerly described forms, two new spined variants, and a new form of Triparma columacea subsp. alata Marchant (North Pacific form), are reported from Antarctic waters. Plates belonging to Tetraparma pelagica Booth et Marchant were found in Disko Bay, Greenland. The placement of the above taxa in the classification scheme of the Parmales is extremely difficult due to the lack of knowledge about the parmalean life cycle, as well as their definite affinity to other taxonomic groups. This is the first report of Parmales from arctic and subtropical waters, indicating a worldwide distribution, thus emphasizing their possible importance in oceanic food webs and the need for further research.
The ultrastructure of Commation gen. nov. (Stramenopiles incertae sedis), a genus of heterotrophic nanoplancktonic flagellates from Antarctic waters

Commation gen. nov. is a genus of planktonic, unicellular protists characterized by a circular to oval (sometimes flattened) cell body and a proboscis. Cells move predominantly by gliding. The mitochondria are tubulocristate and the two flagellar basal bodies are furnished with microtubular roots as well as a rhizoplast. The single emerging flagellum, which is rarely observed, apparently carries tripartite hairs. These features suggest that Commation should be listed among the genera and groups of organisms assembled in the informal group stramenopiles. Two species, C. eposianum sp. nov. (previously referred to as the "comma-shaped amoeba") and C. cryoporinum sp. nov., are described from Antarctic waters. The species are distinguished by differences in, e.g., the morphology of the proboscis, the complexity and details of the cytoskeleton, and the number of types of extrusomes present. Commation spp. appear to be ubiquitous in Antarctic waters at cell abundances typically ranging from 10^3-10^4 cells per litre.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Larsen, J. (Ekstern)
Pages: 462-477
Publication date: 1993
Main Research Area: Technical/natural sciences

Publication information
Journal: European Journal of Protistology
Volume: 29
Issue number: 4
ISSN (Print): 0932-4739
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Abundance of cryptophyceae and chlorophyll b-containing organisms in the Weddell-Scotia Confluence area in the spring of 1988

During a cruise in the Weddell-Scotia Confluence area (EPOS Leg 2: November–January 1988/1989) nanophytoplankton composition was determined by employing taxon-specific pigment measurements with HPLC. The biomass of the most important components was estimated by using specific pigment ratios measured in cultures of two cryptomonads and a prasinophyte. Highest cryptophyte biomass was found along the retreating ice-edge; the contribution of cryptophytes to total phytoplankton crop increased with time, reaching monospecific bloom conditions at the end of the cruise. Chlorophyll b-containing organisms and Prymnesiophyceae were present everywhere and dominated in the ice-covered part of the survey area. Cryptophyte-specific pigment measurements were in reasonable agreement with cryptophyte cell numbers. Prasinophyte cell counts, however, did not match with measured chlorophyll b concentrations. The quantitative importance of the nanophytoplankton groups reported here underlines the diversity of the plankton in the Southern Ocean's marginal ice zone system which may have implications for food chain dynamics.
Biomass and abundance of pelagic cyanobacteria and protists from the transition area between the Baltic Sea and the North Sea, July 1990

General information
State: Published
Organisations: University of Copenhagen
Authors: Buck, K. (Ekstern), Ærtebjerg, G. (Ekstern), Larsen, J. (Ekstern), Thomsen, H. A. (Intern)
Pages: 35-42
Publication date: 1992

Host publication information
Title of host publication: Proceedings of the 12th Baltic Marine Biologists Symposium
Place of publication: Fredensborg
Publisher: Olsen & Olsen
Editors: Bjørnestad, E., Hagerman, L., Jensen, K.
ISBN (Print): 8785215252
Main Research Area: Technical/natural sciences
Conference: Baltic Marine Biologists Symposium, Helsingør, Denmark, 01/01/1991
Source: orbit
Source-ID: 278962
Publication: Research › Article in proceedings – Annual report year: 1992

Fytoplankton og heterotroft nanoplankton: Fra: Planktondynamik og stofomsætning i Kattegat

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Hansen, G. (Ekstern), Larsen, J. (Ekstern), Moestrup, Ø. (Ekstern), Vørs, N. (Ekstern), Fenchel, T. (ed.) (Ekstern)
Number of pages: 245
Publication date: 1992

Publication information
Place of publication: København
Publisher: Miljøstyrelsen, Miljøministeriet
ISBN (Print): 87-7810-032-1
Original language: Danish
Series: Havforskning fra Miljøstyrelsen
Number: 10
Main Research Area: Technical/natural sciences
Links:
Source: orbit
Source-ID: 278960
Publication: Research › Report – Annual report year: 1992

Loricate choanoflagellates of the Southern Ocean with new observations on cell division in Bicosta spinifera (Thromsden, 1970) from Antarctica and Saroeca attenuata Thomsen, 1979, from the Baltic Sea
The loricate choanoflagellate Bicosta spinifera was observed frequently in Antarctic samples collected along Scotia/Weddell Sea transects. The entire population showed a conspicuous bimodal size distribution. Large forms were predominant in Scotia Sea samples, while only small specimens were found in the Confluence area. Prior to cell division Bicosta spinifera produces a complete set of costal strips in a temporary "tail"-like protrusion. Small specimens sometimes possess a "tail" similar to that found in large specimens. The fact that B. spinifera may increase considerably in size following cell division, in connection with the finding of aberrant minute forms, have prompted us to hypothesize a polymorphic life history in B. spinifera. The term "caudiform" division is introduced to describe division in B. spinifera. Saroeca attenuata also produces a "tail" prior to cell division, but is otherwise shown to undergo a mixed caudiform/tectiform type of division.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Larsen, J. (Ekstern)
Plankton i indre danske farvande. En analyse af forekomsten af alger og heterotrofe protister (ekskl. ciliater) i Kattegat

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (ed.) (Intern), EFSA Publication
Number of pages: 340
Publication date: 1992

Publications information
Place of publication: København
Publisher: Miljøstyrelsen, Miljøministeriet
ISBN (Print): 87-7810-034-8
Original language: Danish

Series: Havforskning fra Miljøstyrelsen
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Main Research Area: Technical/natural sciences
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Source: orbit
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Publication: Research › Report – Annual report year: 1992

Choanoflagellate diversity with particular emphasis on the Acanthoecidae

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Buck, K. (Ekstern)
Pages: 259-284
Publication date: 1991

Publications information
Title of host publication: Free-living heterotrophic flagellates
Place of publication: Oxford
Publisher: Oxford University Press
Editors: Patterson, D., Larsen, J.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278963
Publication: Research - peer-review › Book chapter – Annual report year: 1991

Choanoflagellates of the central California waters: Abundance and distribution
Choanoflagellates have been enumerated at between 7 and 10 stations on a transect > 300 km in length off the central California coast on 7 cruises from August 1989 to June 1990. Abundances and biomass of choanoflagellates, estimated from epifluorescence counts, ranged from 2900 to 3900,000 cells per liter and from 0.01 to 38.44 μgC per liter. Minimum abundances were associated with offshore stations during March and maximum abundances with the coastal stations during the same cruise, coincident with a Chaetoceros bloom. Choanoflagellate biomass comprised approximately 12% of the total heterotrophic biomass was significantly correlated (r = 0.54, P <0.001) with the heterotrophic flagellates. An average of 17% of the choanoflagellates had autotrophic picoplankton in their vacuoles. Choanoflagellates were calculated to clear between <0.1 and 180% of the water column per day.

General information
State: Published
Organisations: Monterey Bay Aquarium Research Institute, University of Copenhagen
Authors: Buck, K. (Ekstern), Chavez, F. (Ekstern), Thomsen, H. A. (Intern)
Pages: 179-186
Publication date: 1991
Main Research Area: Technical/natural sciences
Publication information
Choanoflagellates of the central California waters: Taxonomy, morphology and species assemblages

A qualitative and quantitative survey of nanoplankton communities at offshore Californian localities sampled during September 1989, has revealed a diverse choanoflagellate community consisting of more than 40 taxa, three of which are described as new species (Acanthocorbis haurakiana sp. nov., Parvicorbicula zigzag sp. nov. and Stephanoeca apheles sp. nov.). A biogeographic analysis of the distributional patterns of species encountered indicate that the Californian choanoflagellate fauna consists of species with quasi-cosmopolitan distribution, on top of which is superimposed a contingent of species otherwise associated with warm water regions. A station by station clustering analysis based on the relative abundance counts showed that onshore stations formed a cluster that was significantly different from that formed by offshore stations. Clustering of the PSI values for the species by species matrix revealed two significant clusters, one formed by species found throughout the study area, and one formed by species only encountered in onshore samples. Oligotrophic stations were characterized by high abundances of Pleurasiga minima.
Fine structure and biology of Cryothecomonas gen. nov. (Protista incerta sedis) from the ice biota

The morphology and ultrastructure of four species of CRYOTHECOMONAS gen. nov. (Protista incerta sedis) in material from the Weddell Sea, Antarctica, and the Isefjord, Denmark, are described. These heterotrophic flagellates, which were initially observed in association with sea ice, display a unique combination of morphological characteristics. At present it is impossible to assign the new genus to an existing higher taxonomic level of protistan flagellates. Cryothecomonas species are furnished with a close-fitting multilayered theca. The two naked anterior flagella emerge through narrow thecal funnels. A transitional helix is part of the flagellar transition zone. A conspicuous cytostome is located in a posterior (lateral) position. Food uptake is mediated through the extension of cytostomal pseudopodia. The nucleus is anteriorly located and contains a conspicuous nucleolus and distinct areas of chromatin. Mitochondrial cristae are tubular. Cryothecomonas species feed on cells in the size range 2-4.5 μm (e.g., algal Flagellates). Data are presented on the abundance of Cryothecomonas armigera sp. nov. in Antarctic waters.
Heteromorphic life histories in arctic coccolithophorids (Prymnesiophyceae)

During three visits to Disko Bay, West Greenland, we found four different types of prymnesiophyte flagellates with heterococcoliths from species of the genera Papposphaera Tangen and Pappomonas Manton and Oates in characteristic and consistent combinations with holococcoliths from species of the genera Turrisphaera Manton, Sutherland, and Oates and Trigonaspis Thomsen. We conclude that several taxa previously considered to be autonomous species are, in fact, part of life histories combining hetero- and holococcolithophorid forms in a manner somewhat similar to that known from studies of cultured strains of Coccolithus pelagicus (Wallich) Schiller and Crystalloolithus hyalinus (Gaarder) Markali. Similarly, Calciarcus Manton, Sutherland and Oates and Wigwamma Manton, Sutherland and Oates also may be alternate phases of a coccolithophorid life history.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Østergaard, J. (Ekstern), Hansen, L. (Ekstern)
Pages: 634-642
Publication date: 1991
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Phycology
Volume: 27
Issue number: 5
ISSN (Print): 0022-3646
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.065 SNIP 1.084 CiteScore 2.6
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.266 SNIP 0.981 CiteScore 2.69
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 1.242 SNIP 1.315 CiteScore 2.76
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 1.159 SNIP 1.123 CiteScore 2.56
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 1.035 SNIP 1.046 CiteScore 2.3
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
Dictyocha speculum (Silicoflagellata, Dictyochophyceae). Studies on armoured and unarmoured stages

General information
State: Published
Organisations: University of Copenhagen
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Pages: 1-57
Publication date: 1990
Main Research Area: Technical/natural sciences

Publication information
Journal: Biologiske skrifter / Det Kongelige Danske Videnskabernes Selskab
Volume: 37
ISSN (Print): 0366-3612
Ratings:
BFI (2016): BFI-level 1
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
BFI (2013): BFI-level 1
ISI indexed (2013): ISI indexed no
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 278817
Publication: Research - peer-review › Journal article – Annual report year: 1991

Kakoeca antarctica gen. et sp.n., a loricate choanoflagellate (Acanthoecidae, Choanoflagellida) from Antarctic sea ice with a unique protoplast suspensory membrane
A new genus and species of loricate choanoflagellate, Kakoeca antarctica Buck & Marchant gen. et sp. n., grown in rough culture from an Antarctic sea ice inoculum is described. This organism has a distinctive lorica morphology consisting of more than 200 costal strips arranged in transverse and longitudinal costae that are perpendicular to one another in the posterior portion of the lorica. The transverse costae show declination with respect to the lorica axis in the anterior part of the lorica. The cell is suspended in the lorica by a robust protoplast suspensory membrane. This membrane blocks water flow from the posterior of the lorica necessitating water entry through the side of the lorica, an area where the maximum sized apertures in the lorica are found. Terminology (lorica lining and protoplast suspensory) is suggested for the two types of lorica membranes which have been found associated with loricas.
Loricate choanoflagellates (Acanthoecidae, Choanoflagellida) from the Weddell Sea, Antarctica

A study of the choanoflagellate species composition of an Antarctic ice edge zone (northern Weddell Sea, March 1986) has resulted in the finding of 16 taxa of which one, Cosmoeca takahashii Thomsen sp.n., is described here. An emended description is given of Parvicorbicula circularis. Morphological, numerical and dimensional aspects of other species have been analysed in an attempt to improve the circumscription of certain taxa, and to increase our understanding of the nature of intraspecific variability. Data on the relative abundance of choanoflagellate species along seaward transects perpendicular to the ice edge showed that seven species account for more than 95% of all choanoflagellates identified. The two most abundant species were Parvicorbicula socialis and Diaphanoeca pedicellata.

**General information**

State: Published
Organisations: University of California, Santa Cruz, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Buck, K. R. (Ekstern), Coale, S. L. (Ekstern), Garrison, D. L. (Ekstern), Gowing, M. M. (Ekstern)
Pages: 367-387
Publication date: 1990
Main Research Area: Technical/natural sciences

**Publication information**

Journal: Zoologica Scripta
Volume: 19
Issue number: 4
ISSN (Print): 0300-3256
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.224 SNIP 1.74 CiteScore 2.88
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.483 SNIP 1.851 CiteScore 2.7
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.632 SNIP 2.003 CiteScore 3
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.257 SNIP 1.601 CiteScore 2.91
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 1.513 SNIP 1.898 CiteScore 2.79
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.478 SNIP 1.598 CiteScore 2.94
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 1.472 SNIP 1.433
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 1.634 SNIP 1.744
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.255 SNIP 1.458
Scopus rating (2007): SJR 1.252 SNIP 1.262
Scopus rating (2006): SJR 1.219 SNIP 1.324
Scopus rating (2005): SJR 1.026 SNIP 1.715
Scopus rating (2004): SJR 1.212 SNIP 1.72
Scopus rating (2003): SJR 0.974 SNIP 1.059
Scopus rating (2002): SJR 1.067 SNIP 1.43
Macro- and micrograzing effects on phytoplankton communities. The expedition Antarktis VII/3 (EPOS LEG 2) of RV "Polarstern" in 1988/89

General information
State: Published
Organisations: University of Copenhagen
Authors: Alder, V. (Ekstern), Cuzin-Roudy, J. (Ekstern), Fransz, G. (Ekstern), Graneli, E. (Ekstern), Larsen, J. (Ekstern), Rabbani, M. (Ekstern), Thomsen, H. A. (Intern)
Pages: 123-130
Publication date: 1989
Main Research Area: Technical/natural sciences

Mantoniella in Antarctic waters, including the description of M. antarctica sp. nov.
We report the finding the two species of Mantoniella from the Weddell Sea and Prydz Bay, Antarctica. As well as M. squamata, a composition species, we describe M. antarctica sp. nov., the second species in this genus. M. antarica is covered with two distinctive types of discoid scales. The flagella bear only smaller of the scale types whereas the cell body has two types, the larger overlying the smaller.

General information
State: Published
Organisations: Australian Antarctic Division, University of California, University of Copenhagen
Authors: Marchant, H. J. (Ekstern), Buck, K. R. (Ekstern), Garrison, D. (Ekstern), Thomsen, H. A. (Intern)
Pages: 167-174
Publication date: 1989
Main Research Area: Technical/natural sciences
Unicellular organisms studied alive using photographic and video techniques. The Expedition Antarktis VII/3 (EPOS LEG 2) of RV "Polarstern" in 1988/89

General information
State: Published
Organisations: Unknown
Authors: Buma, A. (Ekstern), Estrada, M. (Ekstern), Larsen, J. (Ekstern), Riebesell, U. (Ekstern), Schloss, I. (Ekstern), Thomsen, H. A. (Intern)
Pages: 102-110
Publication date: 1989
Main Research Area: Technical/natural sciences

Algeopblomstringen i foråret 1988

General information
State: Published
Organisations: University of Copenhagen
Authors: Kaas, H. (Ekstern), Larsen, J. (Ekstern), Thomsen, H. A. (Intern)
Pages: 119-124
Publication date: 1988
Main Research Area: Technical/natural sciences
An electron microscopical study of marine loricate choanoflagellates: Nannoeca minuta (Leadbeater) gen. et comb.n. and Stephanoeca cupula (Leadbeater) comb.n.

The circumscription of the choanoflagellate genus Pleurasiga (fam. Acanthoecidae) is problematic in that the generic type, P. orculaeformis Schiller, 1925, is incompletely described and has not been found again. A reinvestigation of two species hitherto referred to this genus (P. minuta Leadbeater, 1972, and P. cupula Leadbeater, 1972) has shown that they are too different from other species of Pleurasiga to remain within the genus. One of them is referred to a new monotypic genus, Nannoeca gen.n., as Nannoeca minuta (Leadbeater) comb.n., whereas the other is transferred to the genus Stephanoeca [S. cupula (Leadbeater) comb.n].
Fine structure of Pyramimonas nansenii (Prasinophyceae) from Danish coastal waters.

A prasinophycean flagellate blooming underneath the ice of a Danish brackish water fjord has been examined with the
light and electron microscope. The dominant species Pyramimonas nansenii is unique in possessing two different types of
large square scales as part of the cell periplast. Internal cell characteristics include the presence of trichocysts and a
particularly pyrenoid matrix. Pyramimonas nansenii is a typical representative of the subgenus Trichocystis.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern)
Pages: 305-318
Publication date: 1988
Main Research Area: Technical/natural sciences

Publication Information
Journal: Nordic Journal of Botany
Volume: 8
Issue number: 3
ISSN (Print): 0107-055X
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.402 SNIP 0.739 CiteScore 0.94
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.492 SNIP 0.873 CiteScore 0.91
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.463 SNIP 0.922 CiteScore 0.97
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.428 SNIP 0.771 CiteScore 0.75
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.341 SNIP 0.564 CiteScore 0.61
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.3 SNIP 0.458 CiteScore 0.47
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.305 SNIP 0.522
Microheterotrophs in the ice edge zone: An AMERIEZ Study

General information
State: Published
Organisations: University of California, Santa Cruz, University of Copenhagen
Authors: Garrison, D. (Ekstern), Gowing, M. (Ekstern), Buck, K. (Ekstern), Coale, S. (Ekstern), Thomsen, H. A. (Intern)
Pages: 169-171
Publication date: 1988
Main Research Area: Technical/natural sciences

Publication information
Journal: Antarctic Journal of the United States
Volume: 20
ISSN (Print): 0003-5335
Original language: English
Source-ID: 278965
Publication: Research › Journal article – Annual report year: 1988

Nanoplanktonic coccolithophorids (Prymnesiophyceae, Haptophyceae) from the Weddell Sea, Antarctica

General information
State: Published
Organisations: University of California, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Buck, K. R. (Ekstern), Coale, S. L. (Ekstern), Garrison, D. L. (Ekstern), Gowing, M. M. (Ekstern)
Pages: 419-436
Publication date: 1988
Main Research Area: Technical/natural sciences

Publication information
Journal: NORDIC JOURNAL OF BOTANY
Volume: 8
Issue number: 4
ISSN (Print): 0107-055X
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.402 SNIP 0.739 CiteScore 0.94
BFI (2015): BFI-level 1
Ultrastructural studies of the flagellate and cyst stages of Pseudopedinella tricostata (Pedinellales, Chrysophyceae)

During the winter of 1985 the uppermost part of the water column of the ice-covered Danish fjord, Isefjorden, was coloured yellowish brown by a growth of the small flagellate Pseudopedinella tricostata (ca. 75 × 10^6 cells l^-1). The species differs from others of the genus by having three chloroplasts only, each with an embedded pyrenoid. In March a distinct yellowish band was found in the lower part of the ice which electron microscopical examination showed to be due to the presence of millions of cysts of P. tricostata. The P. tricostata cyst has a continuous three-layered wall, thus differing markedly from the typical bipartite chrysophycean cyst. The outermost wall-layer contains a significant amount of iron.
Parapedinella reticulata gen. et sp. nov. (Chrysophyceae) from Danish waters

Parapedinella reticulata gen. et sp. nov. (Chrysophyceae) is described on the basis of light microscopy of living material, and also by means of electron microscopy of shadowcast whole mounts prepared from water samples collected in 1981 at some Danish brackish water localities. Additional information is provided by material from a marine habitat in southern Australia. The new taxon comprises small, colorless flagellates possessing a single projecting flagellum which carries tripartite hairs. The membrane of the flagellum is expanded into a sheath which is supported along the edge of a paraxial rod. The cells are covered with delicate scales and possess numerous slender protoplasmic axopodia which are retractable.
Ultrastructure and reconstruction of the flagellar apparatus of Chrysochromulina apheles sp. nov. (Haptophyceae = Prymnesiophyceae)

A new marine species of Chrysochromulina, C. apheles, is described from light and electron microscopy of a culture established from Danish coastal waters. The cells are among the smallest known in any species of Chrysochromulina, measuring ca. 4 \mu.m in diameter. The general fine structure is illustrated and the structure of the haptonema and the flagellar apparatus is described in detail, based on serial sections. The flagellar root system, not previously examined in detail in any member of Chrysochromulina, is shown to consist of four microtubular roots, while cross-banded roots are lacking. Four cross-banded fibres were seen to interconnect the flagellar bases and the haptonema base. The haptonema belongs to the rather unusual six-stranded type. Two very similar looking types of small organic scales are present on the cell body. Unpublished data on the flagellar roots of the type species of Chrysochromulina, C. parva, are included.

Chrysochromulina apheles is apparently cosmopolitan. It has presently been found in material from Denmark, Finland, England, Thailand, Australia, and New Zealand.

General information
State: Published
Organisations: University of Copenhagen
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Pages: 593-610
Publication date: 1986
Main Research Area: Technical/natural sciences

Chrysochromulina brachycylindra sp. nov. (Prymnesiophyceae) from Finnish coastal waters

Chrysochromulina brachycylindra sp. nov. is described by means of transmission electron microscopy of shadowcast whole mounts prepared from wild material collected from Finnish coastal waters. The subspherical cell carries plate-scales and cylinder-scales. The scales are large enough to render possible a light microscopical identification of this species from dry preparations. Based on scale morphology it is evident that C. brachycylindra is closely related to C. pachycylindra Manton, Oates and Course. In addition to the findings from the Baltic Sea the new species is also reported from the Andaman Sea, SW Thailand.
Distribution of algae in Danish salt and brackish waters: Checkliste

General information
State: Published
Organisations: University of Helsinki, University of Copenhagen
Authors: Hällfors, S. (Ekstern), Thomsen, H. A. (Intern)
Pages: 499-504
Main Research Area: Technical/natural sciences

Publication information
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Volume: 5
Issue number: 5
ISSN (Print): 0107-055X
Ratings:
  BFI (2018): BFI-level 1
  BFI (2017): BFI-level 1
  Web of Science (2017): Indexed Yes
  BFI (2016): BFI-level 1
  Scopus rating (2016): SJR 0.402 SNIP 0.739 CiteScore 0.94
  BFI (2015): BFI-level 1
  Scopus rating (2015): SJR 0.492 SNIP 0.873 CiteScore 0.91
  BFI (2014): BFI-level 1
  Scopus rating (2014): SJR 0.463 SNIP 0.922 CiteScore 0.97
  BFI (2013): BFI-level 1
  Scopus rating (2013): SJR 0.428 SNIP 0.771 CiteScore 0.75
  ISI indexed (2013): ISI indexed yes
  BFI (2012): BFI-level 1
  Scopus rating (2012): SJR 0.341 SNIP 0.564 CiteScore 0.61
  ISI indexed (2012): ISI indexed yes
  BFI (2011): BFI-level 1
  Scopus rating (2011): SJR 0.3 SNIP 0.458 CiteScore 0.47
  ISI indexed (2011): ISI indexed yes
  BFI (2010): BFI-level 1
  Scopus rating (2010): SJR 0.305 SNIP 0.522
  BFI (2009): BFI-level 1
  Scopus rating (2009): SJR 0.279 SNIP 0.424
  BFI (2008): BFI-level 1
  Scopus rating (2008): SJR 0.183 SNIP 0.404
  Scopus rating (2007): SJR 0.122 SNIP 0
  Scopus rating (2006): SJR 0.718 SNIP 0.178
  Scopus rating (2005): SJR 0.111 SNIP 1.555
  Scopus rating (2004): SJR 0.216 SNIP 5.48
  Scopus rating (2003): SJR 0.111 SNIP 6.066
  Scopus rating (2002): SJR 0.352 SNIP 9.859
  Scopus rating (2001): SJR 0.232 SNIP 0.245
  Scopus rating (2000): SJR 0.47 SNIP 1.159
  Scopus rating (1999): SJR 0.557 SNIP 1.51
Original language: English
Source: orbit
Source-ID: 278942
Publication: Research - peer-review › Journal article – Annual report year: 1985
A light and electron microscopical investigation of loricate choanoflagellates (Choanoflagellida, Acanthoecidae) from the Andaman Sea, SW Thailand and Denmark: Species of Cosmoeca gen.n.

The choanoflagellate genus Cosmoeca gen.n. is characterized by a very regular arrangement of rod-shaped costal strips, forming 9–12 longitudinal costae (each composed of 3–4 costal strips) and 2–3 transverse costae. Anteriorly the longitudinal costae attach the transverse costae at the joints between neighbouring transverse costal strips. Five species of Cosmoeca are described: C. norvegica sp.n. (type species; previously referred to as sp. "N"), C. ventricosa sp.n., C. phuketensis sp.n., C. subulata sp.n. and C. ceratophora sp.n. Cosmoeca ventricosa sp.n. is obviously part of a form complex, the extent of which has not yet been fully explained. In this paper, three groups of specimens clearly related to C. ventricosa sp.n. are illustrated and briefly described (C. ventricosa forms A, B, C). Form A appears to be identical to Pleurasiga orculaeformis Schiller, 1925, sensu Leadbeater.
Vadehavsundersøgelsen 1980-1983. En undersøgelse af den gradvise etablering af naturlig plantevækst på det kunstige forland foran det nye fremskudte dige i Tøndermarsken

General information
State: Published
Organisations: Unknown
Authors: Christensen, T. (Ekstern), Kaas, H. (Ekstern), Koch, C. (Ekstern), Larsen, J. (Ekstern), Thomsen, H. A. (Intern)
Number of pages: 38
Publication date: 1984

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Original language: Danish
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278838
Publication: Research › Journal article – Annual report year: 1984

A microscopical study of marine collared flagellates (Choanoflagellida) from the Andaman Sea, SW Thailand: Species of Stephanacantha gen-nov and Platypleura gen-nov

The light and electron microscopical examination of nanoplankton from the Andaman Sea has revealed the existence of a very rich choanoflagellate fauna in tropical waters. Approximately 45 loricate choanoflagellates (Acanthoecidae, Choanoflagellida) were recorded from samples collected Sept. 1980, in the vicinity of Phuket Island, Southwest Thailand. Among the undescribed taxa encountered were several which possessed a lorica composed of flattened costal strips exclusively. Six of these are described and allocated to STEPHANACANTHA gen. nov. and PLATYPELURA gen. nov., typified by the Mediterranean species S. campaniformis (Leadbeater) comb. nov. (Parvicorbicula campaniformis) and P. infundibuliformis (Leadbeater) comb. nov. (Parvicorbicula infundibuliformis). Species of Stephanacantha (S. dichtotoma sp. nov., S. parvula sp. nov. and S. formosa sp. nov.), are characterized by very conspicuous bif urcations of the longitudinal costae and by the presence of an upright spine at 1 end of each anterior transverse costal strip. Species of Platypleura (P. cercophora sp. nov., P. acuta sp. nov. and P. perforata sp. nov.) are characterized by a very regular arrangement of transverse costae (2-3) and longitudinal costae which attach the transverse costae, at the joints of adjacent transverse costal strips.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Boonruang, P. (Ekstern)
Pages: 193-214
Publication date: 1983
Main Research Area: Technical/natural sciences

Publication information
Journal: Protistologica
Volume: 19
Issue number: 2
ISSN (Print): 0033-1821
Electron microscopical investigations on two Loricate Choanoflagellates (Choanoflagellida), Calotheca alata gen. et sp. nov. and Syndetophyllum pulchellum gen. et comb. nov., from Indo-Pacific localities

Calotheca alata gen. et sp. nov. and Syndetophyllum pulchellum gen. et comb. nov. are loricate choanoflagellates whose loricae are built up only from broad costal strips. The lorica of both taxa consists of two transverse costae and two sets of longitudinal costal strips. Syndetophyllum pulchellum further possesses a compound pedicel mostly formed by four diverging costal strips that are attached to the posterior lorica end. The most interesting new observation is the morphological adaptations towards linkage of costal strips to each other. In Calotheca alata one end of each anterior transverse costal strip is shaped so as to secure the neighbouring costal strip in a fixed position, whereas in Syndetophyllum pulchellum an anterior groove of each longitudinal costal strip helps to establish a firm contact between anterior transverse and longitudinal costal strips. Both taxa described offer points of resemblance with the recently established genus Stephanacantha, which is typified by Stephanacantha campaniformis (formerly Parvicorbicula campaniformis). The locations at which Calotheca alata and Syndetophyllum pulchellum have been found suggest that both species are confined to warmer waters of full salinity. The known lower temperature limit of Calotheca alata is 15 degrees C, whereas that of Syndetophyllum pulchellum is 10 degrees C.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Moestrup, Ø. (Ekstern)
Pages: 41-52
Publication date: 1983
Main Research Area: Technical/natural sciences

Publication information
Journal: Royal Society of London. Proceedings B. Biological Sciences
Volume: 219
Issue number: 1214
ISSN (Print): 0962-8452
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 2
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.948 SNIP 1.535 CiteScore 4.08
Web of Science (2015): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.916 SNIP 1.673 CiteScore 4.18
Web of Science (2014): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 3.091 SNIP 1.762 CiteScore 5.08
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.947 SNIP 1.881 CiteScore 4.99
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 3.234 SNIP 1.789 CiteScore 5.02
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.894 SNIP 1.61
Ultrastructural observations on marine choanoflagellates (Choanoflagellida, Acanthoecidae) from the coast of Thailand: Species of Apheloecion gen. nov.

Loricate choanoflagellates (Choanoflagellida, Acanthoecidae) (3 spp.), collected from the Andaman Sea near Phuket Island (southwestern Thailand), are described and referred to APHELOECION gen. nov. (holotype: A. quadrispinum sp. nov.). All species possess a single-chambered lorica composed of 1 transverse costa overlaid by a limited number of longitudinal costae which converge posteriorly. Anteriorly the longitudinal costae protrude above the transverse costa as sharp pointed spines. In A. quadrispinum and A. pentacanthum sp. nov., the lorica is terminated by a short posterior spine; in A. articulatum sp. nov., the pedicel is much more prominent, consisting of several costal strips which are joined end-to-end. The species of Apheloecion appear to be most closely related to species of Calliacantha and Monocosta. None of the species described are so far known from localities outside the Andaman Sea.

General information
State: Published
Organisations: Phuket Marine Biological Center, University of Copenhagen
Authors: Thomsen, H. A. (Intern), Boonruang, P. (Ekstern)
Pages: 739-754
Publication date: 1983
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Plankton Research
Volume: 5
Issue number: 5
ISSN (Print): 0142-7873
Ratings:
BFI (2018): BFI-level 1
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
Observations on planktonic marine choanoflagellates (Choanoflagellida) from West Greenland, including a summary of the nanoplankton as a whole

General information
State: Published
Organisations: Unknown
Authors: Thomsen, H. A. (Intern)
Pages: 1-35
Publication date: 1982
Identification by electron microscopy of nanoplanktonic coccolithophorids (Prymnesiophyceae) from West Greenland, including the description of Papposphaera sarion sp. nov.

Eleven taxa of nanoplanktonic coccolithophorids are reported from West Greenland on the basis of material collected in the vicinity of Godhavn (Disko Island) in July and Aug. 1977. Pappomonas flabellifera var. flabellifera is a new record for the northern hemisphere. Five of the species are new recordings for the Disko Bay area (P. sagittifera, Balaniger balticus, Calciarcus alaskensis, Wigwamma annulifera and Turrisphaera arctica). P. sarion sp. nov., is described on the basis of transmission EM. It is distinguished from the 2 other Papposphaera spp. by a different type of appendage head. A summary of all the coccolithophorid data from 1977 show considerable variation within the area investigated with regard to the number of species present in each sample and regarding the local distribution of certain species. The biogeography of the species recorded from West Greenland is considered. The inclusion of several records from nanoplankton investigations of Danish waters show that very few (if any) of these species are distributionally restricted to arctic or subarctic regions.

Some new freshwater species of Paraphysomonas

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern), Zimmermann, B. (Ekstern), Moestrup, Ø. (Ekstern), Kristiansen, J. (Ekstern)
Publication date: 1981
Main Research Area: Technical/natural sciences
Preparation of shadow-cast whole mounts

General information
State: Published
Organisations: Unknown
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Number of pages: 425
Pages: 385-390
Publication date: 1980

Host publication information
Title of host publication: Handbook of Phycological Methods : Developmental and Cytological Methods
Volume: 3
Place of publication: Cambridge
Publisher: Cambridge University Press
Editors: Stein-Taylor, J. R., Gantt, E.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278994
Publication: Research - peer-review › Book chapter – Annual report year: 1980
Quaternariella obscura gen. et sp.nov. (Prymnesiophyceae) from West Greenland

Quaternariella obscura gen. et sp. nov. (Prymnesiophyceae) is described on the basis of EM of shadowcast whole mounts prepared from water samples collected in the summer of 1977, at localities in the vicinity of Godhavn, West Greenland. The new taxon comprises small biflagellate coccolithophorids with a short coiling haptonema. The periplast is composed of at least 2 layers of organic scales of which the outer larger circular scales support crystallite packages, each a group of 4 minute rhombohedrons. Small, unmineralized oval scales are present below the coccolith base-plates.
Turrisphaera polybotrys sp. nov. (Prymnesiophyceae) from West Greenland

T. polybotrys sp. nov. (Prymnesiophyceae) is described on the basis of EM shadowcast whole mounts prepared from water samples collected in the summer of 1977, at localities in the vicinity of Godhavn, western Greenland. The spherical cell has 2 smooth flagella and a somewhat shorter haptonema. The periplast is composed of coccoliths which are goblet-shaped over most of the cell surface. Coccoliths around the flagellar pole are basically similar but unilaterally enlarged. The crystalloids are hexagonal plates. An underlayer of small, unmineralized scale is found below the coccolith base-plates.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern)
Pages: 529-538
Publication date: 1980
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of the Marine Biological Association of the United Kingdom
Volume: 60
Issue number: 2
ISSN (Print): 0025-3154
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.382 SNIP 0.546 CiteScore 0.8
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.532 SNIP 0.683 CiteScore 0.99
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.484 SNIP 0.742 CiteScore 0.91
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.607 SNIP 0.859 CiteScore 1.1
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.554 SNIP 0.761 CiteScore 1.08
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.531 SNIP 0.747 CiteScore 0.95
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.595 SNIP 0.708
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.629 SNIP 0.799
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.742 SNIP 0.839
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.605 SNIP 0.727
Scopus rating (2006): SJR 0.604 SNIP 0.748
Scopus rating (2005): SJR 0.503 SNIP 0.732
Scopus rating (2004): SJR 0.626 SNIP 0.738
Scopus rating (2003): SJR 0.618 SNIP 0.745
Two species of Trigonaspis gen. nov. (Prymnesiophyceae) from West Greenland

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern)
Pages: 218-229
Publication date: 1980
Main Research Area: Technical/natural sciences

Publication information
Journal: Phycologia
Volume: 19
ISSN (Print): 0031-8884
Ratings:
BFI (2018): BFI-level 1
Scopus rating (2016): SJR 0.687 SNIP 0.951 CiteScore 1.76
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.837 SNIP 0.945 CiteScore 1.71
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.871 SNIP 1.068 CiteScore 1.73
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.863 SNIP 1.206 CiteScore 1.95
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.791 SNIP 1.171 CiteScore 1.71
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 1.068 SNIP 1.269 CiteScore 1.6
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.778 SNIP 0.801
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.7 SNIP 0.88
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.65 SNIP 0.83
Scopus rating (2007): SJR 0.809 SNIP 0.988
Scopus rating (2006): SJR 0.944 SNIP 0.975
Scopus rating (2005): SJR 0.85 SNIP 0.926
Scopus rating (2004): SJR 1.007 SNIP 1.1
Scopus rating (2003): SJR 0.906 SNIP 1.155
Scopus rating (2002): SJR 0.887 SNIP 1.165
Scopus rating (2001): SJR 0.909 SNIP 0.989
Wigwamma scenozonion sp. nov. (Prymnesiophyceae) from West Greenland

W. scenozonion sp. nov. (Prymnesiophyceae) is described on the basis of electron microscopy of shadowcast whole mounts prepared from water samples collected in the vicinity of Godhavn (West Greenland) in July and Aug. 1977. This nanoplanktonic coccolithophorid possesses 2 smooth flagella and a shorter coiling haptonema. Coccoliths of one type cover the whole cell. Each coccolith is composed of a ring of rod-like crystallites joined end to end and arranged parallel to the edge of the oval coccolith base-plates. A single enlarged crystallite is found on most coccoliths. W. scenozonion is distinguished from the 2 previously described Wigwamma spp. [W. arctica and W. annulifera] by the lack of coccolith superstructures and by having one, rather than 2 rings of crystallites along the base-plate edge. In addition to the West Greenland specimens a single W. scenozonion cell was encountered in a water sample from Denmark.

A qualitative analysis of phytoplankton in the open Danish waters 1975-1977

C. cyathophora sp. nov. (Prymnesiophyceae), a new species from Danish coastal waters

C. cyathophora sp. nov. is described based on EM examination of shadowcast whole mounts. The water samples yielding this new species originate from the western Baltic, the Great Belt and the southern Kattegat, Denmark, in October 1975 and June 1976. The subspherical cell possesses 2 smooth flagella and a short coiling haptonema. The cell surface is covered by 2 layers of scales. The inner scales are circular, flat, with very fine concentric ridges on the distal surfaces. The outer scales are narrow cylinders, without any conspicuous ornamentation but with a characteristic decrease in wall thickness 2/3 from the base.
Electron microscopical observations on brackish-water nannoplankton from the Tvärminne area, SW coast of Finland

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern)
Pages: 11-37
Publication date: 1979
Main Research Area: Technical/natural sciences

Publication information
Journal: Acta Botanica Fennica
Volume: 110
ISSN (Print): 0001-5369
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
BFI (2016): BFI-level 1
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
BFI (2013): BFI-level 1
ISI indexed (2013): ISI indexed no
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.122 SNIP 0
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.121 SNIP 0
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.121 SNIP 0
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 1.502 SNIP 5.953
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.904 SNIP 4.848
Scopus rating (2007): SJR 0.252 SNIP 2.369
Scopus rating (2006): SJR 0.104 SNIP 0.781
Scopus rating (2005): SJR 0.142 SNIP 1.241
Scopus rating (2004): SJR 0.272 SNIP 1.334
Scopus rating (2003): SJR 0.169 SNIP 0.035
Scopus rating (2002): SJR 0.271 SNIP 0.826
Scopus rating (2001): SJR 0.328 SNIP 1.176
Scopus rating (2000): SJR 0.206 SNIP 0.406
Scopus rating (1999): SJR 0.179 SNIP 0.889
Original language: English
Source: orbit
Source-ID: 278996
Further observations on Chrysochromulina birgeri (Prymnesiophyceae) from the Tvärminne archipelago, SW coast of Finland

General information
State: Published
Organisations: University of Helsinki, University of Copenhagen
Authors: Hallfors, G. (Ekstern), Thomsen, H. A. (Intern)
Pages: 41-46
Publication date: 1979
Main Research Area: Technical/natural sciences

Publication information
Journal: Acta Botanica Fennica
Issue number: 110
ISSN (Print): 0001-5369

Balaniger balticus gen. et sp.nov. (Prymnesiophyceae) from Danish coastal waters

Balaniger balticus gen. et sp. nov. (Prymnesiophyceae) is described on the basis of EM of shadow-cast whole mounts, prepared from water samples collected in Oct. 1975 at localities in the western Baltic. The saddle-shaped cell has 2 smooth flagella and a short haptonema. The cell surface is covered with oval organic scales supporting calcified pyramid-like structures. Confirmation of the calcification of the periplast has been achieved by applying an X-ray analytical electron probe to 1 of the specimens observed. The salinity range of B. balticus indicates that this species may be reckoned among the very limited number of coccolithophorids which prefer brackish water.
Nanoplankton from the Gulf of Elat (= Gulf of Aquaba), with particular emphasis on the choanoflagellates
EM examination of a few grids from a water sample from the Gulf of Elat (= Gulf of Aqaba) yielded 26 nanoplankton spp. (exclusive of calcareous nanoplankton). Twelve [Pachysoea depressa, Parvicorbicula campaniformis, P. infundibuliformis, P. pedicellata, P. pulchella, P. socialis, Pleurasiga minima, P. minima, P. sphyrelata elatensis ssp. nov., Salpingoea camelopardula, S. cruciformis and S. natans] of the recorded organisms are choanoflagellates, none of which were previously recorded from the Red Sea. P. sphyrelata elatensis is described from shadow-cast whole mounts. The Gulf of Elat nanoplankton flora and fauna appear to be very similar to those of the Mediterranean.

General information
State: Published
Organisations: University of Copenhagen
Authors: Thomsen, H. A. (Intern)
Pages: 34-44
Publication date: 1978
Main Research Area: Technical/natural sciences

On the identity of the Heliozoan Pinaciophora fluviatilis and Potamodiscus kalbei, with the description of eight new Pinaciophora species
Although first interpreted as a centric diatom P. kalbei Gerloff (1968) was later shown to be a scale-covered colorless unicell of apparently cosmopolitan distribution but with uncertain taxonomic affinities. Evidence is given that the organism is identical with the heliozoan P. fluviatilis Greeff (1873) sensu Penard (1904). During examination of a large number of whole mounts prepared for EM, mainly on the basis of sea-water samples from Danish marine localities, a large number of scales attributable to the genus Pinaciophora were observed. These scales fall within 10 well defined taxonomic entities, of which only P. fluviatilis Greeff (syn. Potamodiscus kalbei Gerloff and P. spiculata Manton (1978) were observed previously. [The 8 new species were: P. denticulata, P. tridentata, P. bifurcata, P. candelabrum, P. triangula, P. monopora, P. paucipora and P. multicosta].

Chrysochromulina pyramidosa sp. nov. (Prymnesiophyceae) from Danish coastal waters
Chrysochromulina pyramidosa sp. nov. is described on the basis of EM of shadowcast whole mounts, prepared from water samples collected in Oct. 1975 at 2 localities in the Storebælt (Denmark). The saddle-shaped cell possesses 2 smooth flagella and a short haptonema. The cell surface is covered with scales of 2 types. The underlying scales are circular, flat, wide-meshed plates, whereas the outer scales have a pyramidal superstructure on an otherwise similar base-plate.
External morphology of the choanoflagellate Salpingoeca gracilis James-Clark

The external morphology of the generic type S. gracilis James-Clark was investigated with an EM. It is shown to possess a delicately striated lorica of the non-silicified type. As currently circumscribed the choanoflagellate genus Salpingoeca (family Salpingoecaceae), unlike all others, comprises species with non-silicified loricae as well as species with loricae strengthened by costal strips. From the present investigation it is concluded that the 4 marine Salpingoeca species with silicified loricae should be transferred to the Acanthoecacea either as members of existing genera, or under one or more new generic names.
Studies on marine choanoflagellates III. An electron microscopical survey of the genus Acanthoecopsis

The external morphology of 3 choanoflagellates A. spiculifera, A. apoda and A. unguiculata, was investigated by EM of whole mounts. The material came from various localities in the transition area between the brackish Baltic Sea and the Atlantic-influenced North Sea. A. spiculifera (the type species of its genus) differed from A. apoda by a number of lorica characters in addition to the presence or absence of a pedicel. The most prominent distinguishing feature was the placement of the anterior transverse costae. A. unguiculata which cannot be confounded with either of the above mentioned species, was observed during cell division. A description of the division process is given. A. spiculifera is a new record from North Atlantic waters, whereas A. apoda and A. unguiculata have been frequently encountered in the North Atlantic plankton. Typification of the genera included under the family Acanthoecaceae, EM investigation of the nomenclatural types and the delimitation of the genus Acanthoecopsis against the remaining genera comprising species with a costal component to the lorica are discussed.

General information
State: Published
Organisations: Unknown
Authors: Thomsen, H. A. (Intern)
Pages: 86-99
Publication date: 1977
Main Research Area: Technical/natural sciences

Publication information
Journal: Archiv fuer Protistenkunde
Volume: 119
Issue number: 1-2
ISSN (Print): 0003-9365
Original language: English
Source: orbit
Source-ID: 278854
Publication: Research - peer-review › Journal article – Annual report year: 1977

Fine structural studies on the flagellate genus Bicoeca I. - Bicoeca maris with particular emphasis on the flagellar apparatus

The colorless flagellate B. maris was studied by light microscopy (largely confirming previous studies), and by EM of whole mounts and sections. Each cell is heterokont and attached by its smooth posterior flagellum to the bottom of a hyaline lorica, which in the EM is shown to consist of fibers, not arranged in any distinct pattern. This flagellum for some distance after its emergence from the cell remains closely appressed to the cell in a longitudinal groove. The front flagellum is free and bears tripartite hairs, also found in the endoplasmic reticulum and in the perinuclear space. The nucleus is lateral and associated with the flagellar basal bodies, with the single Golgi body, and with a membrane bound structure of unknown function and origin. The mitochondria contain tubular cristae. The very complicated flagellar apparatus which includes at least 5 microtubular and 5 cross-banded structures is described in detail. Part of it is connected directly with the so-called peristome, which appears to function in food uptake. The phylogeny of Bicoeca is discussed, based on the evidence
obtained from this and 2 other recent studies.

**General information**
State: Published
Organisations: Unknown
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)
Pages: 101-120
Publication date: 1976
Main Research Area: Technical/natural sciences

**Publication information**
Journal: Protistologica
Volume: 12
ISSN (Print): 0033-1821
Original language: English
Source: orbit
Source-ID: 278857
Publication: Research - peer-review → Journal article – Annual report year: 1976

**Stephanosphaera pluvialis - en ejendommelig rock-pool-alge nu fundet på Bornholm**

**General information**
State: Published
Organisations: Unknown
Authors: Kristiansen, J. (Ekstern), Thomsen, H. A. (Intern)
Pages: 19-21
Publication date: 1976
Main Research Area: Technical/natural sciences

**Publication information**
Journal: Flora og Fauna
Volume: 82
ISSN (Print): 0015-3818
Ratings:
- ISI indexed (2013): ISI indexed no
- ISI indexed (2012): ISI indexed no
- ISI indexed (2011): ISI indexed no
- Scopus rating (2000): SJR 0.128
- Scopus rating (1999): SJR 0.103
Original language: Danish
Source: orbit
Source-ID: 278997
Publication: Research › Journal article – Annual report year: 1976

**Studies on marine choanoflagellates II. Fine-structural observations on some silicified choanoflagellates from the Isefjord (Denmark), including the description of two new species**
Light microscopic and EM investigations of lorica-dwelling choanoflagellates (Acanthoecaceae) were carried out on water samples from the Isefjord, collected Jan. and Feb. 1975. Seven species are reported from the area. These include two new species, CRINOLINA isefiordensis gen. nov. et sp. nov., and Parvicorbicula circularis sp. nov. Pleurasiga reynoldsi is new to the Danish flora, and P. orculaeformis (recorded with some reservation as to specific identity) is a new record from North Atlantic waters. A morphological description is given of the spherical colonies of Diaphanoeca pedicellata which predominated in the Jan. plankton samples. The arctic species D. aperta is transferred to Crinolina: C. aperta (Leadbeater) comb. nov.

**General information**
State: Published
Organisations: Unknown
Authors: Thomsen, H. A. (Intern)
Pages: 33-51
Publication date: 1976
Main Research Area: Technical/natural sciences

**Publication information**
An ultrastructural survey of the chrysophycean genus Paraphysomonas under natural conditions

Electron microscopical examination of whole mounts, prepared from freshly collected seawater samples from the Isefjord area (Denmark), has led to the enumeration of seven species belonging to the chrysophycean genus Paraphysomonas. One of these is *P. sideriophora* sp. nov., characterised by its single type of scale, each resembling a flat-iron. Three of the species have previously been recorded from Denmark.

Most of the type descriptions of Paraphysomonas species refer to accidentally cultured material. When the same species are observed under natural conditions, as in the present investigation, the variation in scale size and morphology is seen to be considerably wider than reported in the type descriptions. This applies in particular to *P. foraminifera* Lucas and *P. imperforata* Lucas. The discrepancies between the type descriptions and the present material is probably a reflection of the fact that cultured material consists of one or a few clones only (sexual reproduction is unknown), whereas the immediate processing for electron microscopy of freshly collected seawater samples, carried out over a longer period, probably provides material from several clones.

The taxonomy of the various scale-covered heterokont genera of the Ochromonadales is briefly discussed.

An ultrastructural study of the flagellate *Pyramimonas orientalis* with particular emphasis on Golgi apparatus activity and the flagellar apparatus

Algefortegnelse. Oversigt over udbredelsen af danske salt- og brakvandsarter fraset ikke-planktiske kiselalger
The prasinophycean flagellate *Pyramimonas orientalis* has been examined by light and electron microscopy of wild and cultured material. The many different scales which cover all cell surfaces, including the flagella, are described; their synthesis and assembly in the two Golgi bodies have been examined. The Golgi bodies work simultaneously to produce all at least five—scale categories, including hollow hair shaped scales. From the Golgi system the scales become transported to a special container—a reservoir—in which they, in an unknown way, separate and become arranged in the same pattern as on the body surface. From the reservoir, the scales move through a duct to the cell surface, apparently together with the subtending membrane, which thus becomes incorporated in the plasmalemma or the flagellar membrane. The liberation process, which differs from that of other species of *Pyramimonas* examined, is illustrated diagrammatically, starting at two extensions of ER from the nuclear envelope. The flagellar apparatus possesses a flagellar root system of the green algal type, a finding of phylogenetic significance. Furthermore, near the flagellar transition region a structure was observed, which at present is known from certain “brown” groups of algae, but never from any green flagellate. The taxonomic implications are discussed briefly, and a virus attacking the nuclear area of the cell is reported. Very surprisingly two different sizes of the virus were found, which may be different stages of the same “organism”.

**General information**

State: Published  
Organisations: University of Copenhagen  
Authors: Moestrup, Ø. (Ekstern), Thomsen, H. A. (Intern)  
Pages: 247-269  
Publication date: 1974  
Main Research Area: Technical/natural sciences

**Publication Information**

Journal: Protoplasma  
Volume: 81  
Issue number: 2-3  
ISSN (Print): 0033-183X  
Ratings:  
BFI (2018): BFI-level 1  
BFI (2017): BFI-level 1  
Web of Science (2017): Indexed Yes  
BFI (2016): BFI-level 1  
Scopus rating (2016): SJR 0.822 SNIP 0.962 CiteScore 2.34  
BFI (2015): BFI-level 1  
Scopus rating (2015): SJR 0.952 SNIP 0.948 CiteScore 2.26  
BFI (2014): BFI-level 1  
Scopus rating (2014): SJR 1.1 SNIP 1.018 CiteScore 2.69  
BFI (2013): BFI-level 1  
Scopus rating (2013): SJR 1.34 SNIP 1.113 CiteScore 2.94  
ISI indexed (2013): ISI indexed yes  
BFI (2012): BFI-level 1  
Scopus rating (2012): SJR 1.021 SNIP 1.052 CiteScore 2.29  
ISI indexed (2012): ISI indexed yes  
BFI (2011): BFI-level 1  
Scopus rating (2011): SJR 0.646 SNIP 0.626 CiteScore 1.48  
ISI indexed (2011): ISI indexed yes  
BFI (2010): BFI-level 1  
Scopus rating (2010): SJR 0.732 SNIP 0.628  
BFI (2009): BFI-level 1  
Scopus rating (2009): SJR 0.846 SNIP 0.736  
BFI (2008): BFI-level 1  
Scopus rating (2008): SJR 1.026 SNIP 0.681  
Scopus rating (2007): SJR 0.763 SNIP 0.723  
Scopus rating (2006): SJR 0.754 SNIP 0.587  
Scopus rating (2005): SJR 0.847 SNIP 0.728  
Scopus rating (2004): SJR 1.021 SNIP 0.642  
Scopus rating (2003): SJR 1.013 SNIP 0.712  
Scopus rating (2002): SJR 0.742 SNIP 0.491  
Scopus rating (2001): SJR 0.633 SNIP 0.468
Studies on marine choanoflagellates I. Silicified choanoflagellates of the Isefjord (Denmark)

General information
State: Published
Organisations: Unknown
Authors: Thomsen, H. A. (Intern)
Pages: 1-26
Publication date: 1973
Main Research Area: Technical/natural sciences

Publication information
Journal: Ophelia
Volume: 12
Issue number: 1-2
ISSN (Print): 0078-5326
Ratings:
BFI (2008): BFI-level 1
Scopus rating (2007): SJR 0.393 SNIP 0.65
Scopus rating (2006): SJR 0.39 SNIP 0.739
Scopus rating (2005): SJR 0.379 SNIP 0.659
Scopus rating (2004): SJR 0.473 SNIP 0.556
Scopus rating (2003): SJR 0.591 SNIP 0.651
Web of Science (2003): Indexed yes
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Projects:

The early life of eel in the Sargasso Sea – Influence of oceanography and climate (SARGASSO-EEL) (39107)
The recruitment of the European eel has been in dramatic decline during the last 30 years, and is at a severe low of only 3-5 % of earlier magnitude. This change and its influence on the eel fishery have led to an intensified research in the oceanic phase of the European eel.

In order to contribute to further understanding of the life cycle of eel the Danish eel expedition set out in 2014 for the eel spawning grounds in the Sargasso Sea. Here a consortium of Danish scientists and international collaborators focused on the linkages between oceanography, biological production, eel spawning and the growth and drift of eel larvae.

During the expedition, a wide range of organisms was collected: From the smallest plankton of less than a millimeter to very large fish. A number of research groups are now working on samples and data from the expedition and assembling information on key processes in the early life of eels. Preliminary findings indicate that biological and physical changes have taken place in the spawning areas that may affect the eel larvae’s chances of survival and their journey to Europe.

The project was coordinated by DTU Aqua.
The project is funded by the Carlsberg Foundation and Danish Centre of Marine Research (cruise).

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University of Alaska Fairbanks
University of Rhode Island
Sir Alister Hardy Foundation for Ocean Science (SAHFOS)
International Council for the Exploration of the Sea

Period: 01/08/2013 → 01/08/2016
Number of participants: 11
Research areas: Marine Populations and Ecosystem Dynamics & Fish Biology & Oceanography

Project participant:
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Marine nanoplankton (39091)
The project is focusing on two groups of marine nanoflagellates, the loricate choanoflagellates and the weakly calcified coccolithophorids from polar seas.

Choanoflagellates are present in all aquatic environments and contribute a significant share of the heterotrophic nanoflagellate biomass. Recent molecular evidence has documented that the choanoflagellates is a sister group of the animal kingdom, a fact that has further increased the research focus on these organisms. This project will result in a monographic treatment of all loricate taxa described (c. 150) building upon the increasing molecular evidence unveiling relationships among genera and species, and a significantly improved understanding of the principles behind lorica formation.

Coccolithophorids are abundantly present with high species diversity in low latitude oceans. However, a small contingent of taxa has been shown to prevail in polar seas. Contrary to all other coccolithophorid species the polar contingent are all non-photosynthetic forms. Within this project attempts will be made 1) to sequence as many of these forms as possible in order to evaluate their relationship with coccolithophorids at large, and 2) provide hard core evidence from TEM thin sectioning of the lack of a photosynthetic organelle. All genera and species described will in turn be revisited in order to prepare a future reference basis.

The projects is coordinated by DTU Aqua.

National Institute of Aquatic Resources
Period: 01/01/2013 → 31/12/2015
Number of participants: 1
Research area: Oceanography and Climate
Project Coordinator:
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Project