

BIO-info 11/2012, 23. mars 2012

submission deadline to bio.info@bio.uib.no is Wednesday 16:00

Fra toppen!

Havets helse

På Helix-konferansen om maktforhold, verdiskaping og fornuft i marin sektor denne uken ble bl. a. vitenskapens rolle diskutert. Poul Dejnbold fra ICES kunne fortelle at mange europeiske fiskebestander fiskes på 3-4 ganger det maksimale bærekraftige utbytte. Det er et økt fokus på det marine økosystemets helse, men er kunnskapen om sammenhengen mellom fiskeri og økosystembalanse kommet langt nok?

BIOs egne forskere Jeppe Kolding og Mikko Heino beskrev resultater som tyder på at de økosystembaserte modellene kanskje ikke er så bærekraftige likevel når det kommer til stykket. Endringer i biomasse og fiskeriindusert evolusjon i retning av lavere alder ved kjønnsmodning er observert. Kanskje et balansert fiske, der man høster på ulike stadier og ulike nivåer i næringskjeden, er mer bærekraftig enn et selektivt fiske?

Det er åpenbart et økt behov for kunnskap om havets helse. HIs direktør Tore Nepstad tok til orde for å utvide Fiskeri- og kystdepartementets mandat slik at det kunne kalles et Hav- og kystdepartement. Det ville vært et fornuftig grep, og lokalt er vi gjerne med på en satsing på havets helse. En slik satsing kunne favne vidt, fra havets helse til menneskets helse basert på sunn sjømat, og med bærekraftig havbruk og akvamedisin som viktige elementer. Bergen Marine Forskningsklynge jobber med saken.



Hilsen Anders

Ukens bilde



Fotograf: **Jan Berge**

From BIOs skiday at Voss.

You are invited to submit photos (electronically!) for "Ukens bilde". Please include a very short description and credit information. Picture can be of researchers / students in action, technology, organisms, field sites ... Please send your pictures to bio.info@bio.uib.no

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BIO-info

Nyheter fra Institutt for biologi

Faste lenker:

[BIO-info arkiv](#) [Sakslister & referater](#) [BIOs interne websider](#) [BIO's eksterne websider](#)
[Facebook BIO](#) [Facebook STIM](#) [Facebook UiB](#)

VIKTIG INFORMASJON

Information seminar about FRIMEDBIO and ERC Starting Grants;

BIO information seminar on the RCNs FRIMEDBIO program and EUs ERC starting grants program



FRIMEDBIO and ERC are important national and European funding schemes which provide funding for independent projects in an open (national/European) competitive arena on the basis of scientific merit.

In this seminar the BIO-professors Mikko Heino, Anne Gro Vea Salvanes and Tron Frede Thingstad will share their knowledge based on their respective roles as successful applicant 2011, member of FRIMEDBIOs Expert Committee, and member of ERC Starting Grant evaluation panel. Anja Hegen, advisor at UiBs Department of Research Management, will inform about ERC starting grants application procedure.

Time: **Wednesday March 28th at the HIB large auditorium at 12:15 - 14:00**

Programme:

- Mikko Heino - "Hva kan man lære fra evalueringer?"»

Mikko received 11,4 mill NOK in funding for his project "An experimental evaluation of fisheries induced evolution and its consequences". His project was ranked as the best project among all projects evaluated in FRIMEDBIO in 2011.

- Anne Gro Vea Salvanes – "Evaluation of research proposals in FRIMEDBIO".

Anne Gro is member of the Expert Committee of FRIMEDBIO and thus has inside knowledge on the evaluation processes. The Expert Committee oversees and synthesizes the evaluations from the 11 expert panels and decides on a ranked list of research proposals that merit funding.

- Anja Hegen - "How the UiB Division of Research Management can help you with your ERC Starting Grant application"

Anja is part of the advisory team for externally financed projects at the division of research management UiB. She works mainly with researchers from the MN faculty. She can offer a broad range of information services and practical help with applications for different kinds of externally financed projects. EUs ERC program is one of her expert areas. [Link to presentation](#)

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Nyheter fra Institutt for biologi

- Tron Frede Thingstad- «ERC StG Litt om evalueringsprosessen»

Frede has been a successful applicant to many programs and currently holds an ERC advanced grant. However, this time he will focus on his experience as an “insider” of ERC starting grants. He is currently member of the ERC starting grant evaluation panel LS8 “Evolutionary, population & environmental Biology”

- There will be ample time for questions and discussion. **You are all Welcome!**

BIO-arrangement kommende uke

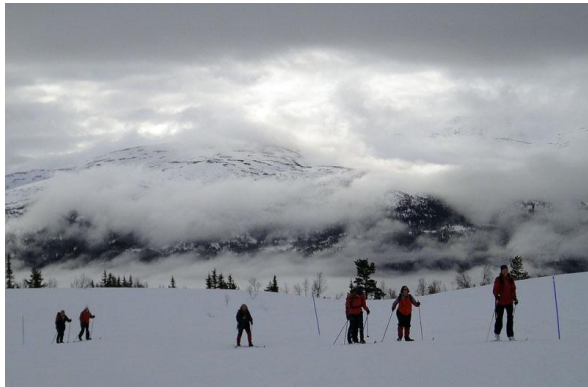
Dato	Handlinger, navn	Tid og sted
26. mars	Prøveforelesning Laura Gil Martens: Feed and feeding for farmed fish welfare	10:00, Sildetønningen, Nordnesboder 4, NIFES
28 mars	BIO-seminar om søknadsskriving	12.15 – 14. HIB stort auditorium
28 mars	Ledermøte	14.30 – 16.00 sted: tba

NYHETER OG GENERELL INFORMASJON

Rapport fra BIOs skidag; Prøveforelesning Laura Gil Martens

BIOs skidag

Fra en av deltagerne har følgende tilbakemelding kommet:



«Hjertelig takk for en flott dag i snøen i vossafjellene. Et fint hms-tiltak som mange av oss setter stor pris på. Det var gode forhold i løypene både for turgåing og kjøring; rikelig med snø, mildt og stille, og spennende lys.
...Ja, det var så flott ute i fjellheimen at en av turdeltakerne hadde problemer med å avslutte i tide, og måtte se toget gå fra stasjonen, dinglende høyt oppe i "Danglo"... men det går jo alltid et tog...»

Studie

Laura Gil Martens Prøveforelesning

Laura Gil Martens vil mandag 26. mars holde forelesning over oppgitt emne for ph.d. graden

Tittel: “Feed and feeding for farmed fish welfare”

Evalueringskomité: Elisabeth Holen, Monica Sanden og Bjørn Tore Lunestad

Tid og sted: Mandag 26. mars kl 10:00, kl. 10 00, møterom Sildetønningen, Nordnesboder 4, NIFES

Nyansatte

Ny personalkonsulent

Navn/Stilling	Ansatt dato	Forskningsgruppe
Victoria Chimhutu/personalkonsulent	19. mars 2012	Administrasjonen

Victoria Chimhutu er fast ansatt som personalkonsulent ved Seksjon for personal og service. Hun har mastergrad i Administrasjon- og organisasjonsvitenskap fra UiB, og før hun kom til BIO hadde hun jobbet ett år som personalkonsulent i sentraladministrasjonen ved Høgskolen i Bergen.

Victoria har flyttet til Norge fra Zimbabwe, og hun snakker svært godt norsk. Hennes arbeidsfelt vil være knyttet til utlysning og tilsettingsprosessen samt andre personalrelaterte oppgaver. Vi ønsker henne velkommen til BIO.

NYE UTLYSNINGER

Mer info om utlysninger inkl. løpende, dvs. uten frister finner du [her](#)

Husk å sende søknadsutkastet til post@bio.uib.no 1 uke i forveien (gjelder ikke mindre bevilgninger som legater og fonds)

Doctorate School in Global Change Science and Policy; Nye EØS-millioner til forskningssamarbeid med Romania; Nytt program avløser RENERGI

Doctorate School in Global Change Science and Policy (ChangeS) CALL FOR APPLICATIONS

The PhD Programme in Science and Management of Climate Change is jointly organized by the Ca' Foscari University of Venice and the Euro-Mediterranean Centre for Climate Change (CMCC), an integrated, multi-disciplinary frontier research center for understanding, controlling and adapting to Climate Change.

The Call for Applications for the academic year 2012/2013 will be closed on the 11th of April 2012 (12:30 pm). [More info](#)

Nye EØS-millioner til forskningssamarbeid med Romania



Avtale som ble undertegnet mellom Romania og Norge i Bucuresti i dag, omfatter blant annet 150 millioner kroner til forskningssamarbeid. Det er første gang det er inngått en slik forskningsavtale med Romania.

[Les mer](#)

Forskningsrådet: Nytt program avløser RENERGI:

Ønsker innspill til ny energiprogramplan

Nyoppnevnt utvalg skal bestemme innhold til og innretning av nytt program for energiforskning.

KOMMENDE MØTER OG SEMINAR

Mer info om kurs, møter, seminar og arrangement etc finner du [her](#).

3rd Marine Board Forum; Sett Sjøbein konferansen; Graduate Course (SKOK); International Conference on Science Communication; Framtid I Nord; Algae week; Infodag EUs 7RP siste call; Åpent møte om gentesting

3rd Marine Board Forum 18 April 2012 - New Technologies for a Blue Future



The 3rd Marine Board Forum will examine emerging or future “Blue Technologies” which are either used in, or drawn from, the seas and oceans and which could have the potential to make a significant contribution either to marine science or to society.

Through a mix of presentations, networking and panel discussions, the participants will tackle the following questions:

- What blue technologies can we expect in the future?
- What impacts might they have on science and/or society?
- What training, knowledge-transfer and funding support is necessary to fast-track blue technology development?

Who should attend the Forum? European and national policymakers, advisors and programme managers, scientists, industry and NGOs. [Programme, registration and further information](#)

Sett Sjøbein konferansen 11- 12 april

Sett Sjøbein har siden 2009 arrangert rekrutteringskonferanse for fiskeri- og havbruksnæringen. På årets konferanse skal vi ha hovedfokus på kompetanseheving for våre næringer, og vi har invitert flere gode og spennende foredragsholdere. Vi skal selvsagt ikke glemme rekruttering, men det er kompetanse som vil være i hovedfokus denne gangen. Dette er en naturlig følge av at vårt styre, FKD og FHF ønsker et større fokus på dette arbeidet i Sett Sjøbein. [Program](#) og [påmelding](#)

Centre for Women’s and Gender Research (SKOK),

University of Bergen, Norway, offers the graduate course, **Absolute Apology, Absolute Forgiveness**, 7 – 9 May, 2012.

Lecturer: Professor David Eng, Adjunct Professor at SKOK and Professor at the Department of English, University of Pennsylvania, USA Register before April 16 to: tone.lund-olsen@uib.no
[More info](#)

International Conference on Science Communication EARLY BIRD REGISTRATION IS OPEN UNTIL APRIL, 30



The International Conference on Science Communication (Journées Hubert Curien) will take place in

Nancy (France) from 4 to 7 September 2012. **Open to all science communicators (researchers, PhD students, science journalists, science and technology museum curators, communication officers...)** [More info](#)

FRAMTID I NORD Innspillskonferanse om økt verdiskaping i nord

Lofoten kulturhus, Svolvær, 16. april 2012. Kl. 11.00 – 17.00

Hvilket samfunn vil vi ha i Nord-Norge i framtida? Hva skal vi leve av om 20, 50 og 100 år? Hva kan økt verdiskaping i reiseliv, fiskeri, havbruk og annen næringsvirksomhet bety for Nord-Norge? Hva trengs for å gjøre Nord-norsk næringsliv klar for framtidens utfordringer?

BIO-info

Nyheter fra Institutt for biologi

Statsrådene Trond Giske, Lisbeth Berg- Hansen, Erik Solheim og Liv Signe Navarsete kommer for å lytte og lære om utfordringene i nord.

Detaljert program vil om kort tid legges ut på www.nhd.no.

Konferansen er gratis, men vi ønsker en påmelding innen onsdag 28. mars.

Algae week in Bodø May 22-25

Bioforsk is pleased to invite all algae stakeholders to an exciting week in Bodø May 22nd- 25th 2012

[More info](#)

Forskningsrådet: Informasjonsdag i Oslo - EUs 7RP siste call

Hold av torsdag 26. april - stor informasjonsdag EUs 7RP siste call

[Les mer](#)

Åpent møte om gentesting:

Gjør-det selv-genetikk

Bioteknologinemnda inviterer til debatt om hvilke regler som skal gjelde for genetisk testing av andre personer, inkludert egne barn.

I løpet av de ti siste årene har det vokst fram et internasjonalt marked for genetiske selvtester.

Motivasjonen for å bruke slike tester kan blant annet være interesse for egen helse og sykdomsdisposisjoner, egne barns helse og sykdomsdisposisjoner, slektsgransking, farskapssaker eller utroskap.

I Norge har firmaet DNA-test Norge siden 2001 tilbudt genetiske tester av farskap, slektskap og utroskap. Nylig har firmaet Gonidio kommet på det norske markedet med en gentest rettet mot barn. Onsdag 11. april debatterer vi hvilke regler som skal gjelde for genetisk testing av andre personer, inkludert egne barn.

Tid: onsdag 11. april 2012 kl. 13.00-15.30

Sted: Continental hotell, Oslo. Lenke til [Påmelding](#) og [Møteinvitasjon på nett](#) (blir oppdatert)

LEDIGE STILLINGER

Mer info finner du [her](#). Stillinger utlyst på BIO finner du nederst til høyre på instituttets [nettside](#).

NYE ARTIKLER

***A full listing of BIO's ISI publications can be found on BIO's internal web pages. [Click here](#)

[Stokke](#); [Roalkvam](#); [Lanzén](#); [Steen](#); [Dupont](#); [Aksnes](#); [Gunawickrama](#); [Salvanes](#); [Heldal](#); [Norland](#); [Sandaa](#); [Thingstad](#); [Bratbak](#); [Liakonis](#); [Imsland](#); [Skjæraasen](#); [Heino](#)

Stokke, Runar; Roalkvam, Irene; Lanzen, Anders; *Haflidason, Haflidi; Steen, Ida H* (2012) *Environmental microbiology*. 2012 : DOI: 10.1111/j.1462-2920.2012.02716.x

Sulfate-reducing methanotrophy by anaerobic methanotrophic archaea (ANME) and sulfate-reducing bacteria (SRB) is a major biological sink of methane in anoxic methane-enriched marine sediments. The physiology of a microbial community dominated by free-living ANME-1 at 14-16 cm below the seafloor in the G11 pockmark at Nyegga was investigated by integrated metagenomic and metaproteomic approaches. Total DNA was subjected to 454-pyrosequencing (829527 reads), and 16.6 Mbp of sequence information was assembled into 27352 contigs. Taxonomic analysis supported a high abundance of Euryarchaea (70%) with 66% of the assembled metagenome belonging to ANME-1. Extracted sediment proteins were separated in two dimensions and subjected to mass spectrometry (LTQ-Orbitrap XL). Of 356 identified proteins, 245 were expressed by ANME-1. These included proteins for cold-adaptation and production of gas vesicles, reflecting both the adaptation of

the ANME-1 community to a permanently cold environment and its potential for positioning in specific sediment depths respectively. In addition, key metabolic enzymes including the enzymes in the reverse methanogenesis pathway (except N(5), N(10)-methylene-tetrahydromethanopterin reductase), heterodisulfide reductases and the F(420) H(2):quinone oxidoreductase (Fqo) complex were identified. A complete dissimilatory sulfate reduction pathway was expressed by sulfate-reducing Deltaproteobacteria. Interestingly, an APS-reductase comprising Gram-positive SRB and related sequences were identified in the proteome. Overall, the results demonstrated that our approach was effective in assessing in situ metabolic processes in cold seep sediments.

Dupont N, Aksnes DL (2012) Effects of bottom depth and water clarity on the vertical distribution of *Calanus* spp. *Journal of Plankton Research* 34:263-266

Several *Calanus* species occupy depths spanning from 100 m to several thousand meters during winter. Here, we report that variations in bottom depth and water clarity accounted for most of the variation in the mean depth of early winter *Calanus* spp. distributions of Norwegian fjords. We suggest a modification of a previously proposed hypothesis (Miller et al., 1991) on how light affects the winter distribution of *Calanus finmarchicus*.

Gunawickrama KBS, Westgaard JI, Salvanes AGV, Johansen T (2012) Characterization of polymorphic microsatellite markers for the bearded goby *Sufflogobius bibarbatus*. *Conservation Genetics Resources* 4:187-189

Fourteen polymorphic microsatellite markers with tetranucleotide repeats were developed for the bearded goby (*Sufflogobius bibarbatus*) from partial genomic DNA libraries using a repeat enrichment protocol, and characterized using two putative populations from the northern Benguela. The average number of alleles per locus ranged from 4 to 34, and the observed heterozygosities across loci were between 0.237 and 0.983. We also tested the utility of these markers in two other marine gobies; sand goby *Pomatoschistus minutus* and two-spotted goby *Gobiusculus flavescens*. These polymorphic markers can be employed to investigate population structure and related questions of the bearded goby.

Heldal M, Norland S, Erichsen, ES, Sandaa, RA, Larsen, A, Thingstad, F, Bratbak G (2012) Mg²⁺ as an indicator of nutritional status in marine bacteria. *Isme Journal* 6:524-530

Cells maintain an osmotic pressure essential for growth and division, using organic compatible solutes and inorganic ions. Mg²⁺, which is the most abundant divalent cation in living cells, has not been considered an osmotically important solute. Here we show that under carbon limitation or dormancy native marine bacterial communities have a high cellular concentration of Mg²⁺ (370-940mM) and a low cellular concentration of Na⁺ (50-170mM). With input of organic carbon, the average cellular concentration of Mg²⁺ decreased 6-12-fold, whereas that of Na⁺ increased ca 3-4-fold. The concentration of chlorine, which was in the range of 330-1200mM, and was the only inorganic counterion of quantitative significance, balanced and followed changes in the concentration of Mg²⁺ + Na⁺. In an osmotically stable environment, like seawater, any major shift in bacterial osmolyte composition should be related to shifts in growth conditions, and replacing organic compatible solutes with inorganic solutes is presumably a favorable strategy when growing in carbon-limited condition. A high concentration of Mg²⁺ in cells may also serve to protect and stabilize macromolecules during periods of non-growth and dormancy. Our results suggest that Mg²⁺ has a major role as osmolyte in marine bacteria, and that the [Mg²⁺]/[Na⁺] ratio is related to its physiological condition and nutritional status. Bacterial degradation is a main sink for dissolved organic carbon in the ocean, and understanding the mechanisms limiting bacterial activity is therefore essential for understanding the oceanic C-cycle. The [Mg²⁺]/[Na⁺]-ratio in cells may provide a physiological proxy for the transitions between C-limited and mineral nutrient-limited bacterial growth in the ocean's surface layer.

K. M. Liakonis • R. Waagbø • A. Foss • O. Breck • A. K. Imsland. Effects of chronic and periodic exposures to ammonia on the eye health in juvenile Atlantic halibut (*Hippoglossus hippoglossus*). *Fish Physiol Biochem* (2012) 38:421–430 DOI 10.1007/s10695-011-9521-0

The effects of chronic and periodic peaks of un-ionised ammonia (UIA-N) exposure on eye health and cataract formation in juvenile Atlantic halibut, *Hippoglossus hippoglossus*, were examined. Fish with

mean initial weight 51.7 g (SD 13.2) were exposed to five treatments consisting of control group and three groups (ChronicLow, ChronicMedium and ChronicHigh,) chronically exposed with UIA-N of 0.06, 0.12 to 0.17 mg/l, respectively, for 62 days at 11.9°C, pH 8.0 and salinity 34%. Furthermore, a fifth

group (HighPulse) was exposed to the same high levels as ChronicHigh for a short daily period (peak of 15 mg/l 30 min after exposure, 10 mg/l 1 h after exposure and 1.2 mg/l 3 h after exposure). In the subsequent period of the experimental study (from day 63 until day 100), no ammonia was added to the water. Mean weights were significantly lower in groups exposed to chronically high ambient ammonia concentrations compared to corresponding control group throughout the experimental period. The sampled fish exhibited signs of mild cataract formation, although the results showed no clear evidence that the ammonia treatments contributed to differences. Minor differences were found in measured muscle free amino acids, which could be used to explain potential changes in buffering capacity. The eye histidine status differed significantly at day 62, and osmotic differences in the eye lenses (measured as differences in N-acetyl histidine) were found in all group exposed to chronic levels of ammonia.

Skjæraasen, J. E., Meager, J. J. & Heino, M. 2012. Secondary sexual characteristics in codfishes (Gadidae) in relation to sound production, habitat use and social behaviour. *Marine Biology Research*, 8: 201–209.

Little is known about the reproductive biology of the codfishes (Gadidae). Lacking direct observations, the study of secondary sexual characteristics can provide cues to their reproductive biology and behaviour. We reviewed here published accounts on sexual dimorphisms in 25 gadids in light of their general lifestyle, i.e. pelagic or demersal, and social behaviour. In addition, complementary data on fin lengths and drumming muscle size in haddock (*Melanogrammus aeglefinus*), saithe (*Pollachius virens*), blue whiting (*Micromesistius poutassou*) and cod (*Gadus morhua*) are presented. Capacity for sound production occurred in almost half of the studied species, but was most prevalent in demersal species, where it is probably used in resource contests and to attract mates. For semi-pelagic gadids, we postulate that sound production may be linked to the formation of male-biased spawning shoals and the attraction of females towards such shoals; we identify candidate species to further test this hypothesis. Although rarely studied, sexual fin dimorphisms occur in several gadids. Cod, saithe and blue whiting males have longer pelvic fins than females, whereas no such dimorphism was observed in haddock. In cod and haddock, males use pelvic fins during courtship of females and agonistic encounters with other males. Pelvic fins probably also have a similar function in other gadids. The hitherto available information on sexually dimorphic traits and/or courtship behaviour in seven gadid species suggests that complex mating systems and non-random mate choice occurs frequently in this important group of exploited fishes.