

BIO-info 31/2011, 30. sept 2011 [BIO: sakslister og møtereferater](#) [BIO-info arkiv](#)
submission deadline to bio.info@bio.uib.no is Wednesday 16:00

Fra toppen!

HMS-dag med fokus på deg!

HMS-dagen ved BIO som ble avholdt denne uken satte bl.a. fokus på hvordan hver enkelt må involveres for å skape en grunnleggende forståelse for verdien av helse- miljø- og sikkerhetsarbeidet på instituttet. Teddy Broadhurst fra Conoco-Phillips fikk dette tydelig frem i sin presentasjon av selskapets Personal Safety Involvement-strategi. PSI-strategien hadde medført en betydelig reduksjon i antallet rapporterte ulykker og hendelser, og hadde fått HMS-arbeid inn som en grunnstein i arbeidskulturen i organisasjonen. Et viktig budskap var: «If you see it, you own it!». Dette gjelder like mye i å skape et godt psykososialt arbeidsmiljø som i sikkerhetsarbeidet.

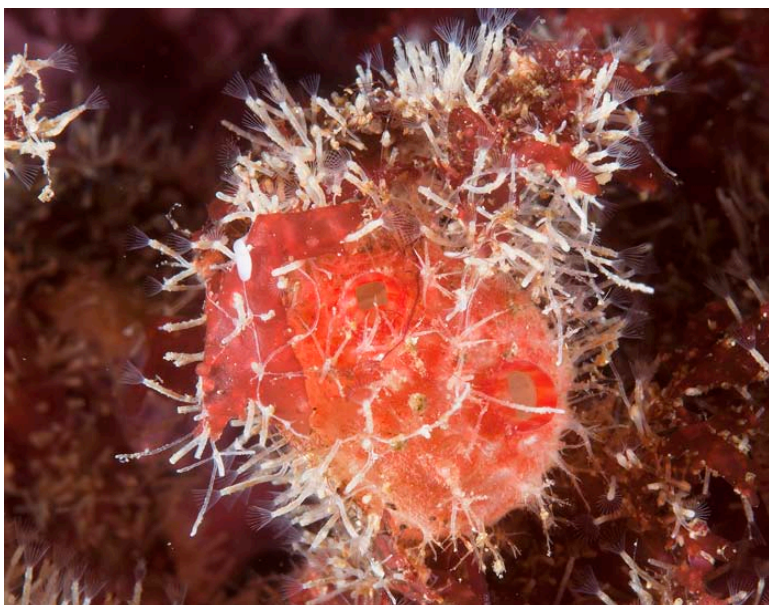
Etter HMS-dagen var det BIO+-arrangement, også på VilVite, med sprudlevann, humorinnslag, mat og lagkonkurranse. De ca. 50 påmeldte fikk med seg et flott arrangement. BIO-info kommer tilbake med bilder og reportasjer i neste nummer. Takk til BIO+-arrangementskomiteen bestående av Anne Gro Veia Salvanes, Solfrid Sture, Nina Ellingsen og Marta Eide for innsatsen!

Og stor takk til verneombudene våre, Lene Synnøve Halvorsen, Vibeke Saure Lokøy og Rira Karlsen, HMS-koodinator Evy Skjoldal og vår administrasjonssjef Elisabeth Lysebo for planlegging og gjennomføring av både arbeidsmiljøundersøkelse og HMS-dag. Vel blåst!

Hilsen Anders



Ukens bilde



Phoronider, eller hva tror du?

Fotograf: Erling Svensen

Et nydelig og spesielt bilde fra den kjente undervannsfotografen Erling Svensen i Egersund. Det er en koloni av et lite mosdyr (Bryozoa), antagelig *Nolella dilatata*, som bruker ett sekkdyr, antagelig *Ascidiella* sp. som underlag. Bildet er tatt på grunt vann i Høgsfjorden ved Stavanger i september 2011 og sendt til **Torleiv Brattegard**.

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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Siste nytt fra BIO

BIO seminar; National Plant Network; profiling guest researchers.



Bioseminar Torsdag 6 oktober kl 13-14, i K1/K2 (A-blokka, 1. etg)

Anne Gro Veia Salvanes (EvoFish):

Benguela oppstrøms-økosystemet og den anoxia-tolerante kutlingen - kan variasjon i kutlingmengde vere indikator for klimavariasjon?

(The Benguela upwelling ecosystem and the anoxia tolerant bearded goby - the goby an indicator for climate variation?)

[Les mer.](#)

Returning to her research roots

Suneetha Gunawickrama says that she feels really satisfied with her stay as a guest at Department of Biology. [Read more.](#) Have a guest at BIO? Think about making this a profiling opportunity for BIO. Contact [Elinor Bartle](#) for more information.



BIO deltar i Plantenettverket

Det overordnede målet for Nasjonalt nettverk for plantebiologisk forskning er å styrke norsk plantebiologisk forskning gjennom økt samarbeid, koordinert innsats og rekruttering. [Les mer.](#)

Siste nytt fra verden rundt oss

Lecturers needed, learn by video, the PhD Movie; Gunnerus Sustainability Award;

Spør om foreleser fra Bergen marine forskningsklynge for 18.10

Skolelaboratoriet i realfag ved UiB driver videreutdanning av naturfaglærere, vesentlig fra ungdomstrinnet. Vi håper at forskningsklyngen vil samordne et eller flere bidrag til videreutdanningskurset vårt. [Les mer.](#)

New UiB web

Universitetsstyret sluttet seg, på møtet 29. april 2010, [sak 28/10](#), til en anbefaling fra Universitetsdirektøren om å bytte ut den teknologiske plattformen for Universitetet i Bergens nettsider. På bakgrunn av [vedtaket](#), ble det etablert en styringsgruppe som skal lede arbeidet med å finne en ny teknologisk plattform. [Les mer.](#) [Orientering om saken.](#)

Learning tools: Visual aids

Internet-based tools and videos are making it easier to perfect lab techniques and tasks. But they augment, rather than replace, conventional guidance in person. *Nature* reviewed [Benchfly](#). Whereas BenchFly tends to show basic techniques, or small tricks to get something going, JOVE demonstrates detailed, specific and recently developed protocols. And in contrast to BenchFly's do-it-yourself approach, [JOVE's videos](#) are filmed and produced by an international network of trained camera operators and producers. Production takes place after a text account of the video's technique is peer-reviewed and accepted for publication. *Nature Protocols* has a section on its website that [hosts videos](#) included with the supplementary information accompanying papers — but such submissions remain rare.

The PhD Movie

Nature writes: "Movie depicting PhD plight draws global attention." The PHD Movie is a live-action adaptation of the popular [online webcomic "Piled Higher and Deeper \(PHD\)"](#) about life (or the lack thereof) in Academia. [Learn more.](#)

Newsletters

[World Ocean Observer](#) [CICERO](#)

Invitation to nominate candidates for The Gunnerus Sustainability Award

The Royal Norwegian Society of Sciences and Letters (DKNVS) has recently announced a new international scientific award, The Gunnerus Sustainability Award of 1 million NOK (190 000 USD). The award for 2012 is to be given to scientists whose work has been judged to have a distinct impact towards the sustainability of global biodiversity. The award may be given to one scientist, or shared between two or three, for closely related fundamental scientific contributions.

The Royal Norwegian Society of Sciences and Letters hereby calls for nominations of candidates for the aforementioned award. Science academies, universities, university professors and research institutions are encouraged to submit nominations before **November 1, 2011**. [More info](#)

Ledige stillinger for biologer

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

Forskning: utlysninger, nye satsinger og prosjekter

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)

NORHED erstatter NUFU og NOMA; NDPHS project pipeline new announcement; Nytt NFR program;

NORHED, erstatter NUFU og NOMA

For alle dem som ventet på mer informasjon of hva som skal skje etter NUFU og NOMA har det nå kommet et faktaark som forteller at det nye programmet skal hete NORHED: Norwegian Programme for Capacity Building in Higher Education and Research for Development og starter neste år.

Det kommer en utlysning for såkornmiddel til våren og den første riktige utlysningen høsten 2012. [Mer info](#)

Norway announces funding for projects through the NDPHS Project Pipeline

The Secretariat of the Northern Dimension Partnership in Public Health and Social Well-being (NDPHS) is pleased to announce funding available through the NDPHS Project Pipeline for projects in Northwest Russia aiming to improve health and social well-being in the Northern Dimension area. The funding is provided through a grant scheme offering approximately NOK 9,000,000, which is **administered by the Norwegian Ministry of Health and Care Services**. It is available for projects with a Norwegian and a Russian partner, covering a broad array of thematic areas of relevance to public health and social well-being. [More info](#)

160 millioner kroner til global helse- og vaksinasjonsforskning (GLOBVAC)

Invitasjon til å sende inn obligatoriske prosjektskisser **Søknadsfrist: 30.11.2011 13:00 CET**
[Les mer](#)

Nytt program: Humane biobanker og helsedata



I 2012 kommer første utlysning i det nye programmet «Humane biobanker og helsedata». Programmet skal bevilge 110 millioner kroner i perioden 2012-16.

Avsluttende mastergradseksamen

Gunnar Kvifte, Tone Martinessen

Gunnar Kvifte : Biodiversity studies in Afrotropical moth flies (Diptera: Psychodidae)

Gunnar Kvifte holder mandag 3. oktober avsluttende presentasjon av sin masteroppgave i Biologi, biodiversitet, evolusjon og økologi.

Veiledere: Richard Telford, Trond Andersen. Sensor: John Skartveit, Norsk lærerakademi. Bisitter: John-Arvid Grytnes, BIO

Tid og Sted: Mandag 3. oktober, kl. 14:15, Seminarrom K1, 1. etasje, Biobyggene

Tone Martinessen: Kangerlussuaq revisited after 60 years-changes in species abundance

Tone Martinessen holder fredag 7. oktober avsluttende presentasjon av sin masteroppgave i Biologi, biodiversitet, evolusjon og økologi.

Veiledere: John-Arvid Grytnes. Sensor: Arvid Odland, Høgskolen i Telemark Bisitter: Kjersti Sjøtun, BIO

Tid og Sted: Fredag 7. oktober, kl. 13:15, Seminarrom K1, 1. etasje, Biobyggene

Kurs, møter, seminar og arrangement

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



Marine Biotechnology Conference, Nasjonal konferanse om grunnforskningens rolle; Arctic bloom PhD course; Marin bioteknologi konferanse i Bergen; Miniseminar om publiseringsindikatorer;

Forsknings Samarbeid

Universitets- og høyskolerådet (UHR) og FFA – Forskningsinstituttene fellesarena inviterer til åpent dagsseminar 18. oktober 2011 på Håndverkeren i Oslo.

Arrangementet er en del av Vitenskapsåret og vil fokusere på samarbeid på tvers av institusjonsgrenser. Hva slags samarbeid mellom universiteter, høyskoler og forskningsinstitutter kan bringe norsk forskning videre? Påmeldingsfrist er 10. oktober. [Les mer.](#)



Vitenskapsåret: Forskningsuniversitetet og globale utfordringer

Vil du være med å diskutere fremtidens globale utfordringer og hvordan vi skal møte disse med ny viten? I anledning Vitenskapsåret inviterer Universitetet i Bergen, i samarbeid med Kunnskapsdepartementet, til en nasjonal konferanse om grunnforskningens rolle i vår stadig mer globaliserte verden. [Les mer.](#)

Tid: 29. november 2011, kl. 09.00 - 15.30

Sted: Egget i Studentsenteret ved Universitetet i Bergen



2012 Ocean Sciences Meeting

20-24 February 2012
Salt Lake City · Utah · USA
abstract deadline: 7 Oct.
[Read more.](#)

BIO-info

Nyheter fra Institutt for biologi

14th BBB Junior Scientist Mini-Symposium

September 30th in Auditorium 4, BB Building at 12:30-15.00 (please note that we start at 12:30!). All welcome! [Read more.](#)

BIO-RESOURCES FROM OCEANS INTERDISCIPLINARY WORKSHOP

November, 28 – 29, 2011

Berlin-Brandenburg Academy of Sciences and Humanities, Jägerstraße 22 / 23, D – 10117 Berlin
Support possible – contact [Anne Fjellbirkeland](#) before October 10th. [Learn more.](#)

Invitasjon til miniseminar 13. oktober: "The legacy of Nansen. Relevance to development cooperation in fisheries"

Seminarer arrangeres i forbindelse med det halvårslige møtet i EAF Nansenprogrammet.

Tid: Torsdag 13. oktober, kl. 09.00 - 12.00

Sted: Utviklingshuset, Brynjulf Bulls plass 2, Oslo

[Les mer.](#)

PhD course: Fate of the Arctic spring bloom

Advanced course in the Arctic from 25 April to 7 May 2012. Application deadline is 1 November 2011

Read more from [website](#) and from [.pdf](#)

Marin bioteknologi: KONFERANSE I BERGEN 12 OKTOBER

Det arrangeres en konferanse for marin bioteknologi her i Bergen den 12. oktober på Vilvite senteret. Nesten alle forskningsmiljøene i Bergen er representert og Kunnskapsdepartementet og NFR kommer også!! [Program og påmelding info.](#)

NASJONALT OG INTERNASJONALT FORSKNINGSSAMARBEID VED UIB BELYST GJENNOM PUBLISERINGSINDIKATORER

Tid: Fredag 7.10. 2011, kl. 10-12. Sted: Møterommet, Bibliotek for humaniora

Universitetsbiblioteket inviterer til et miniseminar med lansering og presentasjon av en rapport om forskningssamarbeid ved UiB basert på sampublisering. Rapporten er utarbeidet og vil legges fram av Susanne Mikki og Dag W. Aksnes ved Universitetsbiblioteket.

Samforfatterskap er en mye benyttet indikator over forskningssamarbeid. For første gang er publiseringsdata for hele UiB analysert, og i rapporten vises samarbeidsprofiler både for universitetet totalt og for de ulike fakultetene. I tillegg vil det i seminaret gis en kort presentasjon av andre relevante publiseringsindikatorer for UiB, siteringsindikatorer og indikatorer fra en NordForsk rapport over nordiske universiteter. Seminaret avsluttes med diskusjon.

Seminaret er åpent for alle interesserte og påmelding sendes til: dag.aksnes@ub.uib.no.

Nye artikler

***A full listing of BIO's ISI publications can be found on BIO's internal web pages. Click here for an [alphabetic listing for 2010](#). Click here for a [listing sorted by date](#) in ISI (most recent at the top).

[Bratbak](#); [Totland](#); [Kryvi](#); [Løkka](#); [Sagstad](#); [Grotmol](#); [Zimmermann](#); [Heino](#); [Ruzzin](#); [Bristow](#); [Gunawickrama](#); [Salvanes](#)

Liu JW, **Bratbak G**, Zheng TL, **Thyrhaug R** (2011) Effects of virus infection on expression of cell cycle regulatory proteins in the unicellular marine algae *Emiliana huxleyi*. *Acta Oceanologica Sinica* 30:89-95

Abstract: The authors have investigated the biochemical events by which marine algal virus infection induces cell cycle arrest. The key G(2)/M-phase regulatory proteins are analyzed by immunoblotting in unicellular *Emiliana huxleyi*, suggesting that virus induced cell cycle arrest is related with virus's effect on cyclins and cyclin dependent kinases. *E. huxleyi* virus (EhV) represses Cdc2/cyclinB complex activity by inhibiting the activity of Cdc2 kinase in a phosphorylation-related manner, blocking host

cells G(2)/M checkpoint. Dephosphorylated / inactive Cdc25C combined with up-regulation of Wee1 expression at early infect period appears to be important mechanisms by which EhV represses Cdc2/cyclinB complex activity that is required for entry into M phase. This study has allowed us to confirm that algal virus infection leads to selective activation or inhibition of certain cell-cycle factors, which may play a significant role in establishing a more efficient environment for viral gene expression and DNA replication.

Totland GK, Fjelldal PG, Kryvi H, Løkka G, Wargelius A, Sagstad A, Hansen T, Grotmol S Sustained swimming increases the mineral content and osteocyte density of salmon vertebral bone. *J. Anat.* (2011) 219, pp490–501. doi: 10.1111/j.1469-7580.2011.01399.x

Abstract: This study addresses the effects of increased mechanical load on the vertebral bone of post-smolt Atlantic salmon by forcing them to swim at controlled speeds. The fish swam continuously in four circular tanks for 9 weeks, two groups at $0.47 \text{ bl} \times \text{s}^{-1}$ (non-exercised group) and two groups at $2 \text{ bl} \times \text{s}^{-1}$ (exercised group), which is just below the limit for maximum sustained swimming speed in this species. Qualitative data concerning the vertebral structure were obtained from histology and electron microscopy, and quantitative data were based on histomorphometry, high-resolution X-ray micro-computed tomography images and analysis of bone mineral content, while the mechanical properties were tested by compression. Our key findings are that the bone matrix secreted during sustained swimming had significantly higher mineral content and mechanical strength, while no effect was detected on bone in vivo architecture. mRNA levels for two mineralization-related genes *bgp* and *alp* were significantly upregulated in the exercised fish, indicating promotion of mineralization. The osteocyte density of the lamellar bone of the amphicoel was also significantly higher in the exercised than non-exercised fish, while the osteocyte density in the cancellous bone was similar in the two groups. The vertebral osteocytes did not form a functional syncytium, which shows that salmon vertebral bone responds to mechanical loading in the absence of an extensive connecting syncytial network of osteocytic cell processes as found in mammals, indicating the existence of a different mechanosensing mechanism. The adaptive response to increased load is thus probably mediated by osteoblasts or bone lining cells, a system in which signal detection and response may be co-located. This study offers new insight into the teleost bone biology, and may have implications for maintaining acceptable welfare for farmed salmon.

M. M. Ibrahim, E. Fjære, E.-J. Lock, D. Naville, H. Amlund, E. Meugnier, B. Le Magueresse Battistoni, L. Frøyland, L. Madsen, N. Jessen, S. Lund, H. Vidal, **J. Ruzzin**. Chronic Consumption of Farmed Salmon Containing Persistent Organic Pollutants Causes Insulin Resistance and Obesity in Mice. *PLoS ONE* 6(9): e25170. doi:10.1371/journal.pone.0025170, 2011.

Abstract: Background: Dietary interventions are critical in the prevention of metabolic diseases. Yet, the effects of fatty fish consumption on type 2 diabetes remain unclear. The aim of this study was to investigate whether a diet containing farmed salmon prevents or contributes to insulin resistance in mice. Methodology/Principal Findings: Adult male C57BL/6J mice were fed control diet (C), a very high-fat diet without or with farmed Atlantic salmon fillet (VHF and VHF/S, respectively), and Western diet without or with farmed Atlantic salmon fillet (WD and WD/S, respectively). Other mice were fed VHF containing farmed salmon fillet with reduced concentrations of persistent organic pollutants (VHF/S-_{POPs}). We assessed body weight gain, fat mass, insulin sensitivity, glucose tolerance, *ex vivo* muscle glucose uptake, performed histology and immunohistochemistry analysis, and investigated gene and protein expression. In comparison with animals fed VHF and WD, consumption of both VHF/S and WD/S exaggerated insulin resistance, visceral obesity, and glucose intolerance. In addition, the ability of insulin to stimulate Akt phosphorylation and muscle glucose uptake was impaired in mice fed farmed salmon. Relative to VHF/S-fed mice, animals fed VHF/S-_{POPs} had less body burdens of POPs, accumulated less visceral fat, and had reduced mRNA levels of *TNF α* as well as macrophage infiltration in adipose tissue. VHF/S-_{POPs}-fed mice further exhibited better insulin sensitivity and glucose tolerance than mice fed VHF/S.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0025170>

Ditrich, T., Papáček, M., and Heino, M. 2011. The clinal uniformity of the unique life history of *Velia caprai* (Heteroptera: Veliidae) and notes to the pre-overwintering period of selected water striders

(Heteroptera: Gerridae). *Entomologica Fennica*, 22: 106-112.

Abstract: Temperate water striders (Gerridae) overwinter as adults and die after spring reproduction. European water cricket *Velia caprai* (Veliidae) overwinters concurrently in egg and adult stage in Central Europe. This rare overwintering strategy goes with longevity of this species. Adults can survive two winters in Central Europe, unlike other semiaquatic bugs. Scandinavian populations of *V. caprai* and water striders *Gerris lacustris* and *G. lateralis* were examined at the beginning and end of September to determine their life histories. Both gerrids start to overwinter during September, females prior to males and macropterous individuals prior to brachypterous. All females of *G. lacustris* and *G. lateralis* enter reproductive diapause before winter. *V. caprai* overwinters in both adult and egg stage in Norway, and can probably survive two winters. Central European and Scandinavian populations of *V. caprai* share the same unusual way of overwintering and probably also the whole life history.

Zimmermann, F., Heino, M., and Steinshamn, S. I. 2011. Does size matter? A bioeconomic perspective on optimal harvesting when price is size-dependent. *Canadian Journal of Fisheries and Aquatic Sciences*, 68: 1651-1659.

Body size is a key parameter influencing demographic characteristics of fish populations as well as market value of landed catch. Yet in bioeconomic modelling, body size is often an overlooked biological and economic parameter. Here we evaluate how size-dependent pricing influences optimal harvest strategies in a model parameterized for two pelagic fisheries, those targeting Atlantic herring (*Clupea harengus*) and Atlantic mackerel (*Scomber scombrus*), in Norway. In our model, positively size-dependent pricing clearly shifts optimal harvest strategies towards lower harvest rates and higher mean body size of caught fish. The results are relatively insensitive to biological (e.g., natural mortality) and economic details of the model (e.g., discount rate or demand function). These findings show that size-dependent pricing influences optimal harvest strategies aiming at maximum economic yield and, hence, requires more attention in resource economics and in fisheries management.

Aminul I. Bhuiyan, Joseph D'Silva and **Glenn A. Bristow** DISTRIBUTION OF ENDOPARASITIC HELMINTHS OF TENUALOSA ILISHA IN BANGLADESH WATERS *Bangladesh J. Zool.* 39(1): 35-47, 2011

Abstract: Distribution of helminth parasites in hilsa, *Tenualosa ilisha* of Bangladesh was observed in 2667 fishes collected from eleven localities under three major ecological habitats, i.e. fresh water, brackish water and marine water. Only a few species of parasite were frequently present in the host. When considering the parasite community from the fish sampled from all over Bangladesh *Faustula* spp., *Aphanurus stossichi*, *Lecithaster indicus*, *Goezia bangladeshi* and *Ilisha parthenogenetica* were more prevalent parasites. The three digeneans (*Faustula* spp., *A. stossichi* and *L. indicus*), one nematode (*G. bangladeshi*) and one cestode (*I. parthenogenetica*) were common to almost all the sites. The parasites with high values of prevalence had correspondingly high values of mean intensity. Mean parasite burden in the three habitats were not significantly different from each other but each site was significantly different from the other.

K. B. Suneetha Gunawickrama, Jon-Ivar Westgaard, **Anne Gro Vea Salvanes** & Torild Johansen Characterization of polymorphic microsatellite markers for the bearded goby *Sufflogobius bibarbatus*. *Conservation Genetics Resources* DOI 10.1007/s12686-011-9505-5

Abstract: 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.