UiB Institutt for biologi

BIO-INFO 27/2008, 8. august 2008 BIO: sakslister og møtereferater BIO-INFO arkiv

Innhold (klikk på sidetallet, så kommer du dit direkte ...)

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Denne ukas viktigste

Viktige tidsfrister

Mer info om følgende utlysninger og mange flere (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)

Løpende	Stimulering til bilateralt forskningssamarbeid innenfor grunnleggende forskning (BILATGRUNN)	26. aug	Frist for toktsøknader for 2009
12. aug	ERA-NET / ERA-NET PLUS Call 2008	15. sept	Helse Vests forskningsmidler for 2009
19. aug	FP7 People: Intra-European Fellowships (IEF) International Incoming Fellowships (IIF) International Outgoing Fellowships (IOF)		

** for more information check BIO-web for more deadlines, further details and on-going opportunities as well as UiB's Department of Research Management

Essentials in English

BIO Summer trip to Skjerjehamn – sign up!

The departement invites you to a trip to Skjerjehamn September 3. 2008.
See attachment and sign up at http://www.bio.uib.no/tur2008/ within August 15.
See you in Skjerjehamn.
Best wishes Sidsel and Svein More information

Congratulations to Bjørn Åge!

It is almost certain that our Head of Administration, **Bjørn Åge Tømmerås**, will be chosen as the new Faculty Director for the MatNat Faculty. We will miss him at BIO, but we realize that four years was the most we could get of him..

New Associate-professor position at BIO

UiB and BIO have decided to establish a new Associate-professor position with chief responsibilities as being the academic advisor for the Heathland Centre (Lyngheisenteret). This position recognizes **Peter Emil Kaaland's** devoted efforts promoting Norway's unique heathland over 30 years; in particular winning UNESCO's prize for cultural landscape in 2001 and a European cultural heritage prize in 2004. The hiring process for this position will take place this autumn.

Applications for research cruises in 2009 – deadline 26.08

Applications are web based. User name: tokt2009 Password: utmothavet. Please give the cruise a name (and number), preferably one that includes a project name.
Please contact the Shipping Department at IMR if you have any questions.

User-friendly short-cut to personal pages

If your name has no unusual Norwegian letters, then **Svein Norland** has made little programme that recognizes a letter short cut such as /pages/SNorland to access a personal page /pages/forsker.php?pid=1027&lang=N . If you have an unusual letter in your name, ask Svein!

Siste nytt fra BIO

Sars-senteret etter Midtveisevalueringen

Sars-senteret er på dagsorden – eller burde vært det. Først gjennomgikk UiB i fjor vår en strategiprosess for sitt forhold til Unifob (som Sars-senteret er organisert under) som konkluderte med at Unifob skulle bli en tydeligere forskningsaktør i seg selv, og ikke først og fremst være et teknisk-juridisk instrument for UiB. I videreføringen av denne saken er det reist spørsmål om Sars-senteret skal tilbakeføres til UiB (og om det da skal være et senter under MN-fakultetet eller inngå i et av instituttene). Deretter ble Sars-senteret evaluert av Forskningsrådet ettersom senteret har levd halvparten av den tida det var lovet å få leve. Hva skal skje når denne tida er omme?

Selv om Unifob-evalueringen kom før Forskningsrådets Sars-evaluering, blir det feil å forholde seg til disse kronologisk. Da må vi i alle fall begynne med Sars-senterets begynnelse. UiBs øverste organer har etablert Sars-senteret og må følgelig ta et stort ansvar for å utvikle Sars-senteret (selv om driften så langt har vært "outsourcet" til Unifob). Før vi kan fokusere på organiseringen Unifob/UiB må UiBs øverste ledelse finne ut hvordan Sars-senteret best mulig kan videreutvikles i henhold til formålet UiB la til grunn for senteret. Det må snarest etableres arbeid med tiltaksplan for videreutvikling av senteret. Midtveisevalueringen fra Forskningsrådets komité er et utmerket utgangspunkt. Hvorvidt en slik plan leder til at Sars-senteret organisatorisk sett flyttes fra Unifob til UiB eller til en annen enhet er svært underordnet og uten hast! Jeg vet ikke vet hva slags organisering som er best – det svaret bør komme ut av en analyse som har som utgangspunkt at UiB ønsker at excellensen og den nåværende styrke ved Sars skal utvikles best mulig videre. Når vi nå har midtveisevalueringen kan og bør en slik analyse gjennomføres.

Hensikten med Sars var å få opp et forskningsmiljø i elitedivisjonen innenfor et framtidsrettet fagfelt. I følge Forskningsrådets evaluering har dette lykkes. Det ser vi blant annet ved at senteret har blitt en node av EMBL[1] i Heidelberg. Derimot sier den internasjonale komiteen at det synes som at UiB og MN-fakultetet ikke helt vet hva vi vil med senteret. Det er på denne bakgrunnen at det er viktig å diskutere senteret: hvordan skal vi sikre oss at kvaliteten bevares og videreutvikles, og hvordan skal vi sikre oss at den høye kvaliteten i senteret smitter over på nærområdene utenfor Sars?

La oss ta det siste først. Det er bare noen få av oss andre som spiller i elitedivisjonen, og det blir feil å si at elitespillerne mislykkes fordi de ikke samarbeider nok med oss vanlige. Vi er stolte av John Birks og Frede Thingstad fordi de markerer BIO og UiB på verdenskartet, og vi spør ikke hvilken glede andre forskningsgrupper har av dem. Det mener jeg må gjelde for Sars også. Vi skal kreve av ledelsen i Sars-senteret at de stadig presser seg etter å lage nye forskningsgrupper innen framtidsrettede temaer. Og vi skal akseptere at de sammen med dette kravet også får mer midler enn oss andre. Men så skal vi samtidig spørre oss selv og dem hvordan vi som er på utsida kan komme i bedre inngrep med Sars-forskerne. Her har BIO stort forbedringspotensial. (Og det har sikkert mange andre institutt, også.) Vi skulle vært flinkere til å tilrettelegge for at masterstudentene våre tar oppgaver ved Sars-senteret, og at PhD-studentene våre har del-veiledning der. Dette er saker som forskningsgruppene og studieadministrasjonen bør tenke gjennom. Et annet spørsmål er hvorvidt alle gruppelederne ved Sars bør ha bistilling ved et UiB-institutt (og det er mange å velge mellom ved vårt eget fakultet, Bergen museum og med-odont) og om instituttene og Sars-senteret skal opprette delte professor- eller førsteamanuensis-stillinger. Dette kan være viktige virkemidler for bedre samarbeid og for rekruttering av flinke folk.

Jeg vet som sagt ikke hva som er den rette organisering av Sars-senteret, men vi må passe oss for å miste både posen og sekken. Det som har skjedd ved BIO – samling av små institutter og samling av enkeltforskere til forskningsgrupper – inngår i et helt generelt internasjonalt mønster i "forskningsuniversiteter": Samarbeid blir stadig viktigere, og likeså forskningsledelse. På denne måten løfter vi hverandre til litt høyere nivå. Samtidig er det mange eksempler på at de største gjennombruddene kommer i litt andre organisasjoner: mindre og mer dedikerte forskningsinstitutter, gjerne med en viss tverrfaglighet. Sars-senteret er det nærmeste vi kommer en slik organisering her i byen. Vi skal derfor tenke oss veldig nøye om før vi gjør noe som kan ødelegge Sars-senterets egenart. Er det mulig å overføre Sars fra Unifob og fremdeles beholde åremålskontraktene, den

[1] European Molecular Biology Laboratory

begunstigede finansieringen og Sars-navnet? Viss ikke, bør vi la være.

I tillegg til alt dette faglige, kan det godt repeteres at Sars-senteret er en øremerket gavepakke til Bergen. UiB mottar en fast bevilgning fra departementet på mer enn 10 millioner hvert år så lenge departementet kan se at UiB har et Sars-senter. Departementet og Forskningsrådet krever at UiB også viser interesse for gaven ved å investere egne midler i senteret. Vi kan ikke si at vi legger ned Sars og heller vil ha disse pengene til samme virksomhet ved BIO eller MBI. Da risikerer vi et nedlagt Sars og ingen friske penger til oss. Så prinsippfaste på likebehandling bør vi ikke være.

Hilsen Jarl Giske

CGB – the Centre for Geobiology – finds an Arctic black smoker

During Part 1 of this summer's cruise, CGB researchers, including **Paco Cárdenas, Cecile Jolly, Steffen Jørgensen, Hans Tore Rapp, Joar Tverberg** and **Elinor Bartle** from BIO, discovered an Arctic black smoker at 2400 m, 300 km from Bjørnøya. The find is significant in terms of size, extent of mineral deposits and uniqueness of the vent fauna as well as for being relatively unexpected as conventional belief is that vigorous venting activity would not be found in slow and certainly not ultra-slow oceanic ridge systems, such as are found north of Iceland.

Image to the left shows a composite of the highest chimney – 11 m.
Image below shows an extensive bacterial map. What you can barely see is that the surfaces are studded with a carpet of snails (there is also a shrimp "shepherd"!). A fallen chimney lies in the second plan.

BIO Summer trip to Skjerjehamn – sign up!

Instituttet inviterer til sommertur til Skjerjehamn 3. september 2008.
Se vedlegg og meld deg på http://www.bio.uib.no/tur2008/ innen 15. august.
Vi sees i Skjerjehamn. Hilsen **Sidsel** og **Svein**. Mer info.

Påminnelse om kort-link til din webside

På grunn av at hjemmesidene til ansatte ved BIO er generert av en database, blir de ganske vanskelig å huske (og skrive av rett). Min egen heter ikke mindre enn
http://www.bio.uib.no/pages/forsker.php?pid=1027&lang=N
Derfor har **Svein Norland** laget en lite program som oversetter en langt mer forståelig adresse til din hjemmeside. Ved hjelp av Svein sin snarvei kan jeg skrive

http://www.bio.uib.no/pages/JGiske
Prøv du også! Husk ”/pages/” og sett så inn forbokstav i fornavn og hele etternavn. Om du ikke har kvittet deg med eventuelle ÆØÅæøå i navnet ennå, så ta enten kontakt med Folkeregisteret eller spør Svein. Eller prøv deg fram.

Siste nytt fra verden rundt oss

Mer forskning vil sikre trygg sjømat

Det trengs kunnskap for å kunne sikre og dokumentere at norsk sjømat er trygg og sunn. I en ny rapport fra Forskningsrådet vurderes forskningsbehov i tilknytning til risikofaktorer ved produksjon og konsum av sjømat. Les mer

Program for stamcelleforskning 2008 - 2012

Programplanen for det nye programmet er nå godkjent av divisjonsstyret for Vitenskap. Utlysningen av forskningsmidler kommer medio august og med søknadsfrist 15.10.2008. Les mer

Ledige stillinger for biologer

Sjekk oversikten på jobbnor!

Frist	Stilling
Now	PhD, School of Natural Sciences, Trinity College Dublin
Now	Diving safety officer, Bamfield Marine Sciences Centre, BC, Canada
Now	PhD, National University of Ireland Maynooth
11.08	Universitetsstipend i vannforskning
15.08	Stipendiat ved Molekylærbiologisk institutt
15.08	Stipendiat ved Molekylærbiologisk institutt
15.08	Postdoctoral position in invertebrate taxonomy, NIWA, Wellington, New Zealand
15.08	Marine System Modeller, Plymouth Marine Laboratory, UK,
15.08	Sars Centre: Stipendiat (PhD-kandidat) innan utvikling av nervesystem i sjøanemonar (cnidaria)
26.08	**BIO: studiekonsulent**
31.08	Gades institutt: Stipendiat i virologi/immunologi ved Influensasenteret
31.08	Post-doc, Department of Oceanography and Fisheries of the University of the Azores
05.09	Science and Technology Fellowship Programme in China http://www.euchinastf.eu
sept	**BIO/EvoFish: stipendiat i evolusjonær biologi**
14.09	Ass. Professor of Aquatic Animal Health, Dept of Med. & Epid., Sch. of Vet. Med., UC Davis
15.09	UiO: Førsteamanuensis/professor i marinbiologi
26.09	4 phd-stipendier i det marine klima og økosystem omkring Færøerne
26.09	IFREMER/HI/**(BIO)**: Postdoc: Modelling blue mussel bioenergetics in aquaculture
30.09	Professorship in Aquatic Ecology open at Stockholm University
okt	**BIO: førsteamanuensis i botanisk økologi**
okt	**BIO: førsteamanuensis i mikrobiell økologi**

Future of european fisheries and aquaculture research

Fra UiBs Forskningsavdeling: Utkast til final report fra FEUFAR project (Future of european fisheries and aquaculture research) er tilgjengelig on-line. Dere får også anledning til å sende innspill til sub-report 6 "research priorities and policy briefing" innen 16. september til info@feufar.eu
Formål til FEUFAR:
"…..to define the research required in the medium term (here taken as 10 years), to permit exploitation and farming of aquatic resources set against the context of key challenges and risks for meeting sustainability requirements. The main output of the exercise will be a publication outlining key challenges, strategic options and the research needs of capture fisheries and aquaculture in European waters and in waters in which European fleets operate under bilateral or multilateral agreements. The project is expected to ***contribute to the development and subsequent implementation of a European Maritime Policy and to further strengthen the European marine research area through anticipation of research needs in the field of fisheries and aquaculture****"*

Latest from integrated marine biogeochemistry and ecosystem research

Read the latest IMBER News with funding and collaborative opportunities, early career scientist opportunities, jobs, publications, web resources, and notifications of Meetings / Conferences / Workshops. Read more.

Forskning: utlysninger, nye satsinger og prosjekter

Utlysning av stipend for forskeropphold ved CGIAR instituttene

Støtte til unge forskere (post docs) som ønsker å arbeide ved et CGIAR senter for opptil 2 år. Seniorforskere kan søke om støtte til kortere opphold ved et CGIAR senter. Søknadsfrist: 03.09. kl 12:00 Les mer

Forskningsrådet

Vaccination research 2008 part II: Norwegian-Indian joint call (GLOBVAC)

A total of up to 30 mill. NOK (6 mill. USD) is available from the Research Council of Norway (RCN), and matched funding from Department of Biotechnology (DBT), India, for the period 2009-2011 to support joint Norwegian-Indian researcher projects and user-driven innovation projects. Søknadsfrist: 03.09. kl 12:00 Les mer

Ukens bilde

Title: The last meals of summer

Photographer: Arne Koldingsnes, friend of **Thelma Kraft**, taken at Fosse in Strandebarm Friday 1. August

Description: Just as this wasp is stocking up on the good things of summer for the long months of winter ahead, we hope that all at BIO have had a summer full of good things and are ready for a new academic year.

Welcome Back!

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 Elinor Bartle (preferable format jpg, gif; size around 300px sq; saved for web - under 60kb).

Ny doktorgrad

Jelena Kolarevic: egg-proteiner hos marine fisk

Jelena Kolarevic disputerer fredag 15. august for PhD-graden med avhandlingen: "Multiple teleost vitellogenins: An evolutionary and functional study". Doktorgraden har fokusert på mangfoldigheten og nedbrytningen av et egg-protein (vitellogenin) hos marine fisk i relasjon til om eggene flyter fritt i vannmassene (pelagiske egg) eller legges på bunnen (bentiske egg). Nedbrytningen av vitellogeninet er vist å være viktig for eggenes vannopptak før gyting slik at de er tilpasset og kan overleve i det høye saltinnholdet i havet. Hos dagens marine benfisk har ca 80 % av artene pelagiske egg, og dette er regnet for å være en viktig årsak til at de har etablert seg som en suksessrik dyregruppe i havet. I avhandlingen er variasjonen i både vitellogeninet og dets kontrollerende gener er blitt karakterisert. Dels har studiene benyttet arter av moderne fisk (familien leppefisk; Labridae) som gyter bentiske eller pelagiske egg, og dels har studiene vedrørt forholdene hos sild som en representant for eldre marine fisk med bentiske egg.

Resultatene viser at det har utviklet seg tre gener (vtgAa, vtgAb og vtgC) som hver produserer sitt spesifikke vitellogenin. Det pelagiske egg dannes hovedsaklig som et resultat av vannopptaket etter en nesten total nedbrytning av VtgAa-formen til frie aminosyrer. Det bentiske egg derimot har kun en liten grad av vitellogenin nedbrytning, og vannopptaket her skyldes hovedsaklig opptak av uorganiske salter. Likevel, selv om mengden av vitellogenin som nedbrytes til frie aminosyrer er liten i de

bentiske egg, er disse aminosyrer viktige for eggets vannopptak før gyting. Sett under ett tyder avhandlingen på at en viss nedbrytning av vitellogenin i egget var etablert som en tilpasning til å gyte i saltvann allerede i de evolusjonært sett gamle sildefisk med sine bentiske egg, men at en total nedbrytning av en spesifikk form at vitellogenin (VtgAa) ikke skjedde før etableringen av de moderne benfisk (Acanthomorpha) med sine pelagiske egg.
Personalia: Jelena Kolarevic er født i 1976 i Beograd, Serbia. Hun er utdannet biolog ved universitetet i Beograd i 2004 hvor hun ble uteksaminert med de beste karakterer. Hun kom til Norge i 2004 som en utvalgt topprangert student innen KVOTE-programmet, for å ta sin PhD ved UiB.
Tidspunkt og sted for disputasen: 15.08.2008, kl. 10:15, Stort auditorium, Høyteknologisenteret.

Gjesteforelesninger, seminarer og kollokvier

Arctic Frontiers 2009: arctic marine ecosystems in an era of rapid climate change

Call for papers for a Science conference organised under the auspices of ARCTOS entitled: **Arctic Frontiers 2009 -Arctic marine ecosystems in an era of rapid climate change", 18-23 January 2009 in Tromsø.**
The conference will focus primarily on the structure and biogeochemical cycling of Arctic marine ecosystems during rapid climate change, as well as sustainable development in Arctic regions.
Deadline for submission of abstracts is 15 October. Les mer her ..

Live Broadcasts from E2E EcoModel Summer School:

Programme entitled: Analyses of the interactions between end to end marine food webs and biogeochemical cycles - 11-16 August 2008, Ankara, Turkey. Leader: Temel Oguz (oguz@ims.metu.edu.tr) Plenary lectures will be broadcasted throughout the week LIVE on the internet. Broadcast will begin on Monday 11 August at 9.00 am Eastern European Summer Time (EEST) and the program will be displayed daily.
Please visit website and check the box called CANLI YAYIN on the upper left corner.
Further information This Summer School is co-sponsored by IMBER, EUR-OCEANS and METU University

The e-Biosphere 09

International Conference on Biodiversity Informatics will be held on 1-5 June 2009 in London. More from conference website. The Call for Abstracts and Applications for Travel Bursaries will be released on the Conference website in the coming weeks. The deadline forsubmission of abstracts and applications is 15 December 2008.

Storstilt EU-finansiering av norske forskere

Felix konferansesenter, Aker brygge - Oslo 28.08.2008 9:00-17:00
- Kom og se hvilke muligheter du tilbys!
Internasjonalt samarbeid er en forutsetning i norsk forskning og deltakelsen i EUs rammeprogram har høyeste prioritet. Deltakelsen gir finansiering, oppmerksomhet og prestisje. Les mer

2009 ASLO Aquatic Sciences Meeting – Special Sessions

Special sessions are being convened at the 2009 ASLO Aquatic Sciences Meeting, in Nice, France, Jan 25-30. Note: The abstract submission deadline is 3 Oct 2008.

- Temporal and Spatial Patterns in Planktonic Microbial Community Structure More info
- Two coral sessions: (1) Coral reefs and coral communities in a changing environment and (2) Environmental factors and mechanisms leading to coral bleaching. More info
- Assessing Climate Change Impacts on Marine Phytoplankton More info.
- The Dark Ocean: Changing Paradigms in a Changing Ocean More info
- Three gelatinous plankton sessions: (1) gelatinous zooplankton bloom ecology & biology, (2) new approaches to the study of gelatinous zooplankton blooms and, (3) impacts of gelatinous zooplankton blooms on food-web dynamics and nutrient cycling.

If you have questions, please contact the session organizers.

A quarter millennium of zoological nomenclature

A symposium of the 20th International Congress of Zoology celebrating 250 years of the scientific naming of animals, starting with the publication of the 10th edition of Linnaeus's Systema Naturae, on January 1st 1758, organised by the International Commission on Zoological Nomenclature. 26-27 August 2008, Paris Read more

2nd International Symposium on Scientific Diving

Finnish Scientific Diving Steering Committee announces the Symposium to be held at the Tvärminne Zoological Station in Finland on October 6th to 9th, 2008. More info

Sars Centre Seminars

Monday August 11 at 13:15 in the Sars seminar room, HIB - 2nd Floor
Prof. Dr. Gert Wörheide, Geoscience Centre of the University of Göttingen, Department of Geobiology, Germany. Title: "Molecular Palaeobiology: Biomineralisation."

Nye artikler

Har du en artikkel, kapittel eller bok som ikke har stått her?
Du kan sende bibliografi og abstract (helst i Word-format) til Jarl så snart du har sidetall.

Kathy Willis: 4200-årig furuskog i Mexico: naturlig eller menneskeskapt?

Figueroa-Rangel, B.L., Willis, K.J. & Olvera-Vargas, M. 2008. 4200 years of pine-dominated upland forest dynamics in west central Mexico: human or natural legacy? Ecology 89: 1893-1907.
Abstract: The pine-dominated forests of west-central Mexico are internationally recognized for their high biodiversity, and some areas are protected through various conservation measures including prohibition of human activity. In this region, however, there is evidence for human settlement dating back to ca. AD 1200. It is therefore unclear whether the present forest composition and structure are part of a successional stage following use by indigenous human populations during the past, or due to natural processes, such as climate. We present a study reconstructing the vegetation dynamics of pine-dominated forest over the past 4200 years using paleoecological techniques. Results from fossil pollen and charcoal indicate that, in this region, pine-dominated forests are the native vegetation type and not anthropogenically derived secondary succession. The predominant driving mechanism for the expansion of pine-dominated forest appears to be intervals of aridity and naturally induced burning. A close association is noted between pine abundance and longer-term climatic trends, including intervals of aridity between ca. 4200 and 2500, 1200 and 850, and 500 and 200 cal yr BP and shorter-term trends. Evident periodicity occurs in pine and Poaceae abundance every 80 years. These short-term quasi-periodic oscillations have been recorded in a number of lake and ocean sediments in Mexico and are thought to be linked to solar forcing resulting in drought cycles that occur at approximately the same time intervals.

Audrey Geffen: diettoverlapping og byttevalg ved metamorfose hos torskefisk

Rowlands, William Ll., Dickey-Collas, Mark, Geffen, Audrey J. & Nash, Richard D. M. 2008. Diet overlap and prey selection through metamorphosis in Irish Sea cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*), and whiting (*Merlangius merlangus*). CANADIAN JOURNAL OF FISHERIES AND AQUATIC SCIENCES 65: 1297-1306
Abstract: Copepods in the genus *Calanus* are usually considered to be the preferred prey of gadoid larvae in many areas; however, in the Irish Sea, the abundances of these *Calanus* species are low and highly variable. We use this situation to test whether *Calanus* species are still actively selected by gadoid larvae in *Calanus*-poor environments. Diets of Irish Sea cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*), and whiting (*Merlangius merlangus*) were studied from the yolk-sac stage to the juvenile stage. Prey from stomach contents were compared with in situ abundance via an index of prey preference. As expected, all larvae selected copepod nauplii at the onset of feeding. As the larvae developed, their prey preferences changed and varied with species. Cod and whiting showed a similar transition of prey species preference, with a clear preference for *Calanus* species after metamorphosis, even in this area of low abundance of these *Calanus* species. The diet composition of haddock differed from that of cod and whiting, as nauplii remained in their diet later into development

and there was little preference for individual copepod species detected. The differences in prey selectivity suggested between these gadoids may be attributed to their population variability through the known variability of their preferred prey items

David Boukal: jakt på hanner kan noen ganger stabilisere predator-bytteforhold

Boukal DS, Berec L, Křivan V 2008. Does sex-selective predation stabilize or destabilize predator-prey dynamics? PLoS ONE 3: e2687. doi:10.1371/journal.pone.0002687

Background Little is known about the impact of prey sexual dimorphism on predator-prey dynamics and the impact of sex-selective harvesting and trophy hunting on long-term stability of exploited populations. **Methodology and Principal Findings** We review the quantitative evidence for sex-selective predation and study its long-term consequences using several simple predator-prey models. These models can be also interpreted in terms of feedback between harvesting effort and population size of the harvested species under open-access exploitation. Among the 81 predator-prey pairs found in the literature, male bias in predation is 2.3 times as common as female bias. We show that long-term effects of sex-selective predation depend on the interplay of predation bias and prey mating system. Predation on the 'less limiting' prey sex can yield a stable predator-prey equilibrium, while predation on the other sex usually destabilizes the dynamics and promotes population collapses. For prey mating systems that we consider, males are less limiting except for polyandry and polyandrogyny, and male-biased predation alone on such prey can stabilize otherwise unstable dynamics. On the contrary, our results suggest that female-biased predation on polygynous, polygynandrous or monogamous prey requires other stabilizing mechanisms to persist. **Conclusions and Significance** Our modelling results suggest that the observed skew towards male-biased predation might reflect, in addition to sexual selection, the evolutionary history of predator-prey interactions. More focus on these phenomena can yield additional and interesting insights as to which mechanisms maintain the persistence of predator-prey pairs over ecological and evolutionary timescales. Our results can also have implications for long-term sustainability of harvesting and trophy hunting of sexually dimorphic species.

Snorre Bakke & Ivar Rønnestad: metode for å beregne peptidtransport over membraner i ål

VERRI T, A. DANIELI, S. BAKKE, A. ROMANO, A. BARCA , I. RØNNESTAD, M. MAFFIA & C. STORELLI 2008. A rapid and inexpensive method to assay transport of short chain peptides across intestinal brush-border membrane vesicles from the European eel (*Anguilla anguilla*). AQUACULTURE NUTRITION 14: 341-349

ABSTRACT Membrane potential depolarization due to electrogenic peptide transport activity was examined in eel (*Anguilla anguilla*) intestinal brush-border membrane vesicles (BBMV) by monitoring the fluorescence quenching of the voltage-sensitive dye 3,3'-diethylthiadicarbocyanine iodide. Our experimental approach consisted of generating an internal negative membrane potential mimicking in vivo conditions and measuring membrane potential depolarization due to different extravesicular dipeptides. Peptide-dependent membrane potential depolarization was observed in both the presence and absence of extravesicular Na+ and was inhibited by diethylpyrocarbonate, which is consistent with the involvement of electrogenic, Na+-independent, H+-dependent peptide transport activity. Kinetic analysis indicated that peptide-dependent membrane potential depolarization is a saturable process (K-m, K-app, 1.5 mmol L−1) and that within the 0.1–10 mmol L−1 peptide range a single carrier system is involved in the transport process. Our results suggest that a peptide transport activity, kinetically resembling the PepT1(Slc15A1)-type-mediated H+/peptide cotransport action, can be monitored in eel intestinal BBMV using an easy and inexpensive fluorescence assay.

Andre Bogevik: nedbryting av fiskeolje i laks

Bogevik AS, A. Oxley & R. E. Olsen 2008. Hydrolysis of acyl-homogeneous and fish oil triacylglycerols using desalted midgut extract from Atlantic Salmon, *Salmo salar*. LIPIDS 43: 655-662

Abstract Despite several studies aimed at evaluating the positional and fatty acid specificity of fish triacylglycerol (TAG) digestive lipases, there is still much uncertainty regarding these issues. The aim of the present study was therefore to address these questions in Atlantic salmon (*Salmo salar* L.). Crude luminal midgut extracts were collected from fed salmon and the hydrolysis studied for various substrates including triolein (Tri-18:1), trilinolein (Tri-18:2), trilinolenin (Tri-18:3),

trieicosapentaenoin (Tri-20:5), tridocosahexaenoin (Tri-22:6) and natural fish oil TAG. Using Tri-18:1, in a time-curve model showed an initial high degree of *sn*-1 or *sn*-3 specificity where *sn*-1,2(2,3)-diacylglycerol (1,2(2,3)-DAG) and free fatty acid (FFA) were the main hydrolytic products up to 15 min. Lack of initial *sn*-2 specificity was confirmed by negligible *sn*-1,3-diacylglycerol (1,3-DAG) being produced. During the further hydrolysis of DAG, all positions appeared susceptible to attack causing a concomitantly small increase in *sn*-1(3)-monoacylglycerol (1(3)-MAG) and 2-MAG, but not at the level expected for an exclusively *sn*-1,3-specific lipase. Oleic acid (18:1n-9) and eicosapentaenoic acid (20:5n-3) were preferred substrates for hydrolysis using both fish oil and acyl-homogeneous TAGs with FFA as the main product of lipolysis. Hydrolysis of the natural fish oil TAG appeared slower yet produced proportionally more MAG and DAG after 5 min, and similar specificities, as for synthetic TAG substrates, were exhibited with 18:1n-9 and 20:5n-3 accumulating in the FFA fraction after 30 min. Notably, 16:0 was particularly conserved in MAG. As TAG resynthesis of absorbed lipid in salmon enterocytes proceeds preferably with 2-MAG as templates, the absorption of 2-MAG, produced during initial stages of TAG hydrolysis, would need to occur rapidly to be effectively utilised via the MAG pathway.

Lawrence Kirkendall: beskrivelse av ny furuskudd-bille fra Yunnan

KIRKENDALL LR, M FACCOLI & H YE (2008) Description of the Yunnan shoot borer, *Tomicus yunnanensis* Kirkendall & Faccoli sp n. (Curculionidae, Scolytinae), an unusually aggressive pine shoot beetle from southern China, with a key to the species of *Tomicus*. Zootaxa: 1819: 25-39

Abstract: We describe a new and highly aggressive species of pine shoot beetle, *Tomicus yunnanensis* Kirkendall & Faccoli, which has been decimating *Pinus yunnanensis* forests in southwest China for almost three decades. This species was confused with *T. piniperda* until recent molecular studies showed the SW China populations to be quite divergent from *T. piniperda* of northeast China and Europe. The clearest morphological differences between these two species lie in the surface sculpture of the elytra: the new species has more widely spaced interstrial granules on the elytral disc, the punctures of interstria 2 on the declivity arranged irregularly and those of striae 1 and 3 smaller. The new species also has dense small hairs on the tip of the antennal club, while *T. piniperda* has only scattered small hairs on that segment. Mature *T. piniperda* specimens are uniformly black, while those of *T. yunnanensis* have the bulk of the elytra lighter than the base of the elytra and the pronotum. The new species is actually more similar to the Mediterranean species *T. destruens*, which differs in geographical distribution and in having the punctures of interstria 2 dense on the declivity and light-colored antennae. Species of *Tomicus* are of general concern to foresters because of their impact on conifer growth, but good illustrations for many species are lacking. We here provide a detailed key to all seven species of the genus (*T. minor, T. piniperda, T. destruens, T. brevipilosus, T. yunnanensis* and the virtually unknown *T. puellus* and *T. pilifer*) as well as diagnostic photographs and drawings. We summarize the biological differences between the new species and *T. piniperda* and recommend improved communication between taxonomists and forest entomologists, as avoidable taxonomic confusion such as that of *T. yunnanensis* and *T. destruens* with *T. piniperda* hinders the combatting of outbreaks of forest insects.

Albert Imsland, Bjørn Roth, Sigurd Stefansson: plasmainsulin og vekst hos kveite

Imsland Albert K., Atle Foss, Bjørn Roth, Sigurd O. Stefansson, Erik Vikingstad, Skjalg Pedersen, Trond Sandvik, Birgitta Norberg 2008. Plasma insulin-like growth factor-I concentrations and growth in juvenile halibut (*Hippoglossus hippoglossus*): Effects of photoperiods and feeding regimes. Comparative Biochemistry and Physiology - Part A: Molecular & Integrative Physiology151: 66-70

Abstract The effects of photoperiod and feeding regimes on plasma IGF-I levels and their relationship with growth rate of juvenile halibut (initial mean weight 364 g) were investigated by rearing fish under five different photoperiod regimes and two feeding regimes for 14 months. The entire photoperiod experiment was divided into 3 phases where the fish in each phase were exposed to either natural photoperiod (N), stimulated photoperiod with long day and short night (S) or continuous light (L). Thus, the following five photoperiod combinations were tested: a) Control group (NNN) b) Group 2A (NLN) c) Group 2B (NNL) d) Long day-natural group (SNN) e) Production group (LNN). In addition, the Control group was split into two parts and fed according to two different feeding regimes: a) Continuous fed group: Fish fed every day. b) Starvation/re-fed group: Fish were starved for 5 weeks

and then re-fed for 10 weeks, and the treatment repeated during the whole experimental period. The analyses of IGF-I were performed from individually tagged fish in all groups in September 2005 and March 2006. In order to test how rapidly starvation affects circulating IGF-I levels samples were taken from the Starvation/re-fed group after a 10 days starvation (September) and immediately after 10 weeks of feeding (March). A significant relationship between IGF-I levels and individual growth in the preceding period and photoperiod and starvation treatment was found on both occasions. In conclusion, the present study indicates that plasma IGF-I levels are correlated to growth in Atlantic halibut, and affected by photoperiod treatment or compensatory growth during re-feeding. Correlation between individual growth rate and IGF-I levels was low, but significant, highlighting the complexity of how environmental factors affect the endocrine and physiological regulation of growth in fish.

Are Nylund: mellomverten til parasitt på sild funnet

Koie, Marianne, Karlsbakk, Egil, Nylund, Are 2008. The marine herring myxozoan *Ceratomyxa auerbachi* (Myxozoa: Ceratomyxidae) uses *Chone infundibuliformis* (Annelida: Polychaeta: Sabellidae) as invertebrate host. FOLIA PARASITOLOGICA 55: 100-104

Abstract: Sequencing of SSU rDNA showed that actinospores of the tetractinomyxon type, which develop in *Chone infundibuliformis* Kroyer (Annelida, Polychaeta, Sabellidae) from the northern Oresund, Denmark, are identical with *Ceratomyxa auerbachi* Kabata, 1962 (Myxozoa, Ceratomyxidae). This myxosporean was found in the gallbladder of the Atlantic herring *Clupea harengus* L. from the northern Øresund, Denmark, and from the Bergen area, western Norway. The pansporocysts and actinospores of *C. auerbachi* are described. This is the third elucidated two-host life cycle of a marine myxozoan, and the first involving a marine ceratomyxid.

John Birks: miljøendringer i Holebudalen 10700-7200 F Kr

Panizzo, V.N., Jones, V.J., Birks, H.J.B., Boyle, J.F., Brooks, S.J. & Leng, M.J. 2008. A multiproxy palaeolimnological investigation of Holocene environmental change, between c. 10700 and 7200 years BP, at Holebudalen, southern Norway. The Holocene 18: 805-817.

Abstract: Geochemical analyses (x-ray fluorescence, δ13C and C/N ratios) were used to reconstruct early Holocene environments (between 10 685 and 7260 cal. yr BP) at a small lake near Holebudalen, southern Norway. Results show a period of increasing stability, with reduced catchment inwash (shown by titanium and potassium minerals), vegetation stabilization and increasing aquatic productivity (C/N ratios). However, periods of instability (loss on ignition (LOI) decrease) are also seen (most notably at c. 9060 cal. yr BP). Chironomid-inferred July temperature (CI-T) reconstructions show a cooling of c. 2ºC (RMSEP = 1.0ºC) between c. 8400 and 8000 cal. yr BP and so high-resolution (5 mm; c. 20 yr) diatom analyses were conducted between 8675 and 7830 cal. yr BP in order to further investigate this change. Between c. 8270 and 8000 cal. yr BP there were large reductions (> 50%) in the abundance of tychoplanktonic diatoms (eg, *Aulacoseira* species) and absolute increases in periphytic diatom communities (eg, *Navicula pupula, Pinnularia mesolepta*). The multiproxy analyses suggest a period of increased lake ice cover with associated reductions in turbulence during this time. Diatom flora changes are concomitant with a fall in percent LOI and increased catchment erosion at the site and other evidence of regional climatic perturbations in the early Holocene. Therefore, superimposed upon an early Holocene warming trend at Holebudalen, there are climatic perturbations, for example reflected between c. 8200 and 8000 cal. yr BP by diatom communities.

John-Arvid Grytnes & Einar Heegaard: hvorfor er diversiteten størst et stykke oppe i fjellsidene?

Grytnes, J.-A., Heegaard, E. & Romdal, T.S. 2008. Can the mass effect explain the mid-altitudinal peak in vascular plant species richness? Basic and Applied Ecology 9: 373-382.

Abstract: A mid-altitudinal peak in species richness is commonly observed and the mass effect (or source–sink effect) has been suggested as a possible cause. We test the importance of the mass effect for generating altitudinal patterns of plant species richness at two grain sizes using a simple estimate of sterility/fertility to indicate sinks and sources. To do this we identified species with fertile specimens (fertile species) and species with only sterile specimens (sterile species) in each sampling unit along altitudinal transects and assumed that the number of sterile species indicated the relative number of sink species, correspondingly that the number of fertile species indicated the relative

number of source species when looking at the overall pattern of species richness along a transect. To evaluate this approach, we investigated the distribution of sterility and fertility of each species along the altitudinal transects. We found that sterile species are found more often at the edges and fertile species more often in the centre of the species altitudinal ranges than expected by chance. Using a fine grain, sterile species richness had a humped altitudinal pattern on all transects investigated at this scale, whereas using a coarse grain two of the three transects investigated had a humped pattern. At the fine grain, sterile species richness had a more pronounced peak than fertile species richness in two of the three transects investigated supporting the hypothesis of the mass effect, but this pattern did not persist at coarser grain. The observations at the fine grain are in accordance with the idea that the mass effect is important in shaping the mid altitudinal peak in species richness, whereas the observations from the coarser grain are ambiguous.