

BIO-info 24/2012, 17. aug 2012 [BIO: sakslister og møtereferater](#) [BIO-info arkiv](#)  
submission deadline to [bio.info@bio.uib.no](mailto:bio.info@bio.uib.no) is Wednesday 16:00

## Fra toppen!

### Full fart på semesteret

Denne uken startet høstsemesteret for fullt. For nye studenter var det bachelormottak og mastermottak tidligere i uken. Både for bachelorprogrammene og for flere av studieretningene på master er det gode søkertall. På master ser vi også nå flere av våre egne studenter igjen på søkerlistene. Det er gledelig.

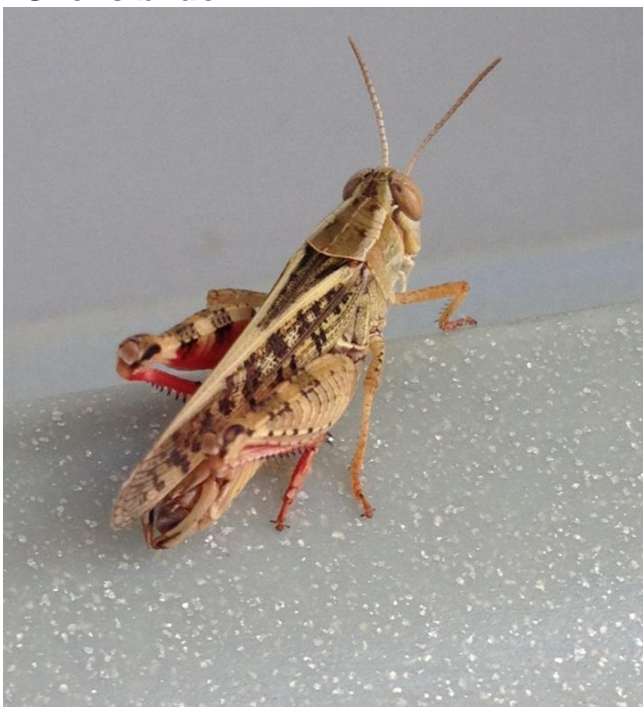
Vi ser også at fjorårets bachelorkull ser ut til å være med oss inn i andre studieår i langt høyere grad enn tidligere kull. På BIO 102 er det 91 studenter som drar på feltkurs til Aurlandsdalen og Lyngheiseret i neste uke, og som hadde det kjekt på Fana Folkehøyskole før sommeren. Dette tyder på at intensjonen med bachelorrevisjonen langt på vei er oppfylt: at vi klarer å holde på studentene mellom 2. og 3. semester. Godt jobbet av alle involverte!

Vi er lovet rapporter fra felten i neste uke, så følg med!

Hilsen Anders



### Ukens bilde



### GRESSHOPPE

Fotograf: **Arne Koldingsnes**

Denne gresshopperen ble tatt da det blåste varme vinder fra det afrikanske kontinent til Cattolica i juli måned i år og alle fikk besøk av gresshopper på terrassene.

*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](mailto:bio.info@bio.uib.no)*

# Innhold:

Full fart på semesteret	1
Faste lenker:	3
<b>VIKTIG INFORMASJON</b>	<b>3</b>
Nye priser mobiltelefoni;	3
<b>BIO-arrangement kommende uke</b>	<b>4</b>
<b>NYHETER OG GENERELL INFORMASJON</b>	<b>4</b>
Disputas Bishnu; Invitasjon til nasjonal registrering av metadata om biodiversitetsdata; FHF har ny adresse	4
<b>Nyansatte</b>	<b>4</b>
Vi ønsker følgende personer velkommen til BIO/Geobiologi	4
<b>NYE UTLYSNINGER</b>	<b>5</b>
Samarbeid med Kina gjennom Nordisk ministerråd; Funding of activities related to petroleum research; Innspill om forskningsinfrastruktur til EU	5
<b>KOMMENDE MØTER OG SEMINAR</b>	<b>6</b>
Seminar om Grunnloven; Ope møte: «Berekreftig og genmodifisert»; MicroNanoBroker: Helping Industry Connect to European Partners	6
<b>LEDIGE STILLINGER</b>	<b>7</b>
NOC jobs;	7
<b>NYE ARTIKLER</b>	<b>7</b>
Baulier; Heino; Thompson; Mangel; Larsson; Ray; Töpper; Spindelböck; Thyraug; Thingstad; Sandaa	7

Faste lenker:

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

## VIKTIG INFORMASJON

Nye priser mobiltelefoni;

### **Endret prisstruktur for mobiltelefontrafikk/ New price structure for mobile phone traffic**

UiB har etter nøye vurdering akseptert et forslag fra Netcom om å endre prisstrukturen på våre mobiltelefonabonnementer. Endringen er gjeldende fra 1. september 2012 og vil løpe fram til ny rammeavtale for mobiltelefoni trer i kraft i september 2013.

Den nye prisstrukturen vil redusere UiBs totale kostnader med mobiltelefoni. Fastavgiften blir noe høyere, men 3000 samtaleminutter og 1000 SMSer per måned er nå inkludert i fastavgiften. Man går i tillegg bort fra løsningen med fri data og over til en modell der man får fri bruk opp til en grense som settes individuelt for hvert abonnement etter hva som er normal bruk for den enkelte.

Billigste abonnement vil koste 138 kroner i måneden. Dette er en vesentlig økning fra tidligere laveste pris men inkluderer altså nå ringeminutter, tekstmeldinger og noe databruk. De abonnementene som hittil har vært billigst vil bli en del dyrere og 15-20 brukere med svært høy datatrafikk vil også få en vesentlig forhøyet månedlig pris. Det store flertall av abonnementer er ikke i noen av disse kategoriene og vil oppleve månedlige utgifter som både er lavere og mer forutsigbare. Forventet innsparing for UiB som organisasjon er i størrelsesorden 30.000 kroner per måned.

Innledningsvis vil alle Netcom-abonnementer bli innplassert i den datatrafikkgruppe deres bruk hittil tilsier. IT-avdelingen vil månedlig ta ut rapporter og hvis bruksmønsteret i et abonnement over tid har endret seg vil vi flytte abonnementet til den datapakken som blir billigst.

Prisstrukturen er skissert på [https://it.uib.no/Netcom\\_abonnementer](https://it.uib.no/Netcom_abonnementer)

Driftsmeldinger og annen informasjon fra IT-avdelingen publiseres på <http://it.uib.no>

=== [ENGLISH] ===

After careful consideration UiB have accepted a suggestion from Netcom to change the price structure on our mobile phone traffic. The change will be operative from September 1st 2012 and will run until a new contract on mobile phone traffic becomes operative in September 2013.

The new structure will reduce UiB's total expenses on mobile phone traffic. The fixed price will increase but 3000 minutes of talking and 1000 SMSes per month are now included in that. Unlimited data traffic will no longer be possible, in stead users will have free use of data up to a limit set on each subscription based on normal use for that subscription.

The cheapest subscription will cost NOK 138 per month. This is a significant increase from previously, but now as stated includes free call minutes, SMSes and some data use. 15-20 users with very high data use will also see a significantly increased monthly cost, but the majority of subscriptions are in neither of these categories and will see decreased and more predictable monthly expenses. Expected savings for UiB as a whole is estimated at NOK 30.000 per month.

All Netcom subscriptions will be put in the data traffic group which their use until now indicates is correct. The IT Department will do monthly reviews and if the usage pattern on a subscription have changed over time we will move that subscription to the cheaper data package.

The price structure is described (on Norwegian only) on [https://it.uib.no/Netcom\\_abonnementer](https://it.uib.no/Netcom_abonnementer)

### BIO-arrangement kommende uke

Dato	Handlinger, navn	Tid og sted
20.8	Disputas Bishnu Prasad Regmi	10:30, Auditorium 4, Realfagbygget,

## NYHETER OG GENERELL INFORMASJON

Disputas Bishnu; Invitasjon til nasjonal registrering av metadata om biodiversitetsdata; FHF har ny adresse

### Disputas Bishnu Prasad Regmi: "A fish introduction and its impact on the plankton community"

Bishnu Prasad Regmi disputerer for ph.d.-graden mandag 20. august .

Bedømmelseskomite: Professor Leif Asbjørn Vøllestad , Universitetet i Oslo, Førsteamanuensis Jan-Erik Svenssonm Medins Biologi AB, Sverige, Førsteamanuensis Jeppe Kolding, Institutt for biologi, Universitetet i Bergen

Leder av disputasen: Professor Øyvind Fiksen, Universitetet i Bergen

Tid: Mandag 20. august 2012, kl. 10.30

Sted: Auditorium 4, Realfagbygget, Allégaten 41

Alle Interesserte er velkommen

### Invitasjon til nasjonal registrering av metadata om biodiversitetsdata.

Det norske LifeWatch- konsortiet bestående av Norsk institutt for naturforskning (koordinator), Norsk institutt for vannforskning, Havforskningsinstituttet, Artsdatabanken og Naturhistorisk Museum ved Universitetet i Oslo) inviterer deg og din institusjon til å delta i en nasjonal dugnad for kartlegging av metadata om biodiversitetsdata. Kartleggingen er en del av det NFR-finansierte prosjektet "Establishment of the LifeWatch Norwegian". Din innsats er svært verdifull for prosjektet.

Prosjektet "Establishment of the LifeWatch Norwegian" er en del av Norges bidrag til det europeiske veikartet for etablering av en internasjonal forskningsinfrastruktur (European Strategy Forum on Research Infrastructures -ESFRI), og har som hovedmål å utrede mulighetene for realisering av en norsk infrastruktur for deling av biodiversitetsdata som en integrert del av [ESFRI LifeWatch Europe](#)  
[Mer info](#)

### Fiskeri-og havbruksnæringens forskningsfond

Fra og med 01.07.2012 endrer FHF postadresse til:  
og havbruksnæringens forskningsfond (FHF)

St. Olavs Plass

Oslo

Og Oslo kontoret vil få ny besøksadresse: Universitetsgata 10



## Nyansatte

Vi ønsker følgende personer velkommen til BIO/Geobiologi

Navn/Stilling	Ansatt dato	Forskningsgruppe
Irene Roalkvam/forsker	01.07.2012	Geobiologi
Julianne Wissuwa/stipendiat	09.07.2012	Geobiologi
Hallgerd Sunniva Eydal/postdoc	15.08.10 – i Bergen og BIO fra 15/8-12	Geobiologi

### NYE UTLYSNINGER

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

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

**Samarbeid med Kina gjennom Nordisk ministerråd; Funding of activities related to petroleum research; Innspill om forskningsinfrastruktur til EU**

#### **Utlysning av midler fra Nordisk ministerråd til etableringen av samarbeidsnettverk mellom kinesiske og nordiske høyere utdanningsinstitusjoner**

Vi orienterer med dette om at Nordisk ministerråd har utlyst midler til etableringen av samarbeidsnettverk mellom kinesiske og nordiske høyere utdanningsinstitusjoner.

Nettverkene skal fremme samarbeid innen utdanning, forskning og innovasjon. Utlysningen er sendt til UiB på grunn av vårt medlemskap i Nordic Centre ved Fudan University. En søknad må inkludere samarbeidsinstitusjoner fra minst tre ulike nordiske land, og det universitetet som står oppført som koordinator i nettverket må være medlemsuniversitet i Nordic Centre. Det kan søkes om opptil DKK 300 000 per år i inntil tre år.

Søknaden sendes på e-post til Nordisk ministerråd **innen 31. oktober 2012**. Søknader krever støttebrev fra institusjonen (rektor), og for at vi skal kunne imøtekomme interne frister, ber vi om at de av BIOs forskere som ønsker å søke, tar kontakt med Anne Fjellbirkeland i god tid før fristen og senest **innen mandag 15. oktober**. [Mer info](#)

#### **Invitation to apply for funding of activities related to petroleum research**

We are pleased to invite applications for funding of activities related to petroleum research, through the "Akademia" agreement between UiB and Statoil.

#### **WHAT YOU CAN APPLY FOR:**

- 1) Travel to conferences etc. related to petroleum research for up to NOK 25 000 (Funds are not for educational purposes - participation with presentation will be given priority)
- 2) Visiting guest researchers (travel and stay)

**The activity must take place in 2012.**

#### **Application will be processed after the priority.**

1. Travel to conferences with presentation.  
    guest researchers.
2. Field work

#### **THE APPLICATION/REQUIRED SPECIFICATIONS:**

**To be evaluated the application MUST include :**

- Your name and position and where you are employed and registered as a PhD candidate (Department/Research Group)
- A specification of purpose /aim
- Conference participation
- Oral Presentation/Poster
- The title of the lecture
- Information regarding supervisorteam/research group (name, position)
- A short recommendation from the supervisor
- Estimated expenses with details including travel budget, conference fee etc.

# BIO-info

## Nyheter fra Institutt for biologi

---

- Whether you have applied other funding
- whether and when (year) you have received money through the akademia mobility scheme before.

### WHO CAN APPLY:

Scientific staff and PhD Students.

**Everyone must give acknowledgment to Statoil on the talks or posters that are made to the conferences Regarding visiting scientists should UiB applicant to ensure that the guest is introduced in the relevant Statoil environment. You are encouraged to propose guest lecture at Statoil, in addition to guest lecture at the University of Bergen will be announced for Statoil.**

Applications and travel claim forms must be marked "Statoil2012 " and sent by email to [katrine.kristiansen@cipr.uib.no](mailto:katrine.kristiansen@cipr.uib.no) (Katrine is located at CIPR , Allegt. 41., tel. 83645)

**DEADLINE FOR APPLICATIONS : 31 August 2012** The committee will use approximately two weeks to evaluate the applications.

### Bli med å påvirke Horizon 2020



Norske forskningsmiljøer oppfordres til å komme med innspill om forskningsinfrastruktur til det nye rammeprogrammet Horizon 2020.

[Les mer](#)

## KOMMENDE MØTER OG SEMINAR

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

Seminar om Grunnloven; Ope møte: «Berekraftig og genmodifisert»; MicroNanoBroker: Helping Industry Connect to European Partners

### Seminar om Grunnloven og det kommunale selvstyret 25. september 2012 (fra 10.00-1530).

Forslag om å grunnlovsfeste selvstyret og lokaldemokratiet har vært avvist av Stortinget ved flere anledninger, senest i juni i år.

Fornyede forsøk på å gi kommunene en konstitusjonell forankring er allerede bebudet. Hører kommunene hjemme i Grunnloven?

Hva vil en grunnlovsfesting innebære?

Dette er spørsmål som belyses i et dagsseminar som arrangeres i samarbeid mellom Universitetet i Bergen, Uni Rokkansenteret og Bergen kommune i Gamle Rådhus i Bergen.

Folkevalgte, forskere, journalister og ansatte i offentlig forvaltning er målgruppe for seminaret.

Program og påmelding blir lagt ut [her](#) i slutten av august

### Bioteknologinemnda og Direktoratet for naturforvaltning inviterer til nytt ope møte: Berekraftig og genmodifisert?

Dato: 10. september 2012, 10.00–15.30.

Stad: Holbergs Terrasse Kurs- og konferansesenter, Stensberggata 27, Oslo

# BIO-info

## Nyheter fra Institutt for biologi

---

Før norske styresmakter avgjør om ein genmodifisert plante kan godkjennast for dyrking eller import etter genteknologiloven, skal dei vurdere om planten bidreg til berekraftig utvikling. På eit ope møte i mai diskuterte vi kva som skal til for å seie at ein plante som er genmodifisert til å tole sprøytemiddel, oppfyller kravet til berekraft.

Temaet for møtet denne gongen er: Korleis kan styresmaktene og selskap som utviklar nye plantesorar, bruke eit sett av kriterium for berekraft i praksis? Korleis vil krav til berekraft stå seg i møte med konkurransereglane i EU og WTO (Verdshandelsorganisasjonen)?

Møtet er gratis og ope for alle, men vi ber om at du melder deg på. Møtet vil foregå på engelsk.

Program og påmelding [her](#)

Bakgrunn for møtet: Bioteknologinemnda har i samarbeid med Direktoratet for naturforvaltning oppretta ei ekspertgruppe for vurdering av genmodifiserte plantar og berekraft. Vi arrangerer møtet i samband med at ekspertgruppa samlast. I løpet av 2012 skal gruppa foreslå dei viktigaste kriteria for å vurdere om ein plante som er genmodifisert til å tole sprøytemiddel, bidreg til berekraftig utvikling.

### MicroNanoBroker: Helping Industry Connect to European Partners

The Michelsen Centre welcomes you to a workshop on August 29 (11-13) with Dr Liliana Sendler who manages MicroNanoBroker, an EU initiative that helps connecting companies in search of competencies and project partners within micro and nano systems, facilitating both direct R&D cooperation and participation in EU funded research.

Full invitation [here](#)

## LEDIGE STILLINGER

NOC jobs;

NOC is recruiting for several research posts. Please follow the link for more details:

<http://noc.ac.uk/jobs>.

- Ocean Environmental Management Researcher (Including deep-sea ecology work)
- Marine Carbon Dioxide Researcher
- Marine Geoscience Researcher (2)
- Post-Doctoral Research Assistant – Microbial Ecologist
- Post-Doctoral Research Assistant – Marine Geoscience (2)

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](#)

[Baulier; Heino; Thompson; Mangel; Larsson; Ray; Töpper; Spindelböck; Thyraug; Thingstad; Sandaa](#)

**Baulier L, Heino M, Gjosæter H (2012)** Temporal stability of the maturation schedule of capelin *Mallotus villosus* in the Barents Sea. *Aquatic Living Resources* 25:151-161

**Abstract:** Capelin in the Barents Sea are primarily harvested in a terminal fishery that targets maturing individuals. Theory predicts that, in a semelparous population (i.e., one in which reproduction is seasonal, synchronous, and followed by parental mortality), an unselective, terminal fishery (i.e., one in which most of the fish that are not caught will not have a new spawning opportunity) does not generate strong selection for changed age and size at maturation. The probabilistic maturation

reaction norm (PMRN) method was applied to test this prediction and to detect possible temporal changes in length at maturation of Barents Sea capelin between 1978 and 2008. Maturation reaction norms suggest that maturation is age-independent in capelin, but that males require a larger size to attain the same maturation probability as females. No temporal trends in length at maturation could be detected, thus confirming the theoretical prediction. Furthermore, none of the candidate environmental variables tested to explain the temporal variability in length at maturation (water temperature and capelin biomass) consistently showed a significant correlation with the PMRN midpoints.

Hosp J, Sagane Y, Danks G, **Thompson EM** (2012) The Evolving Proteome of a Complex Extracellular Matrix, the Oikopleura House. *Plos One* 7

**Abstract:** Extracellular matrices regulate biological processes at the level of cells, tissues, and in some cases, entire multicellular organisms. The subphylum Urochordata exemplifies the latter case, where animals are partially or completely enclosed in "houses" or "tunics". Despite this common strategy, we show that the house proteome of the appendicularian, *Oikopleura*, has very little in common with the proteome of the sister class, ascidian, *Ciona*. Of 80 identified house proteins (oikosins), similar to half lack domain modules or similarity to known proteins, suggesting de novo appearance in appendicularians. Gene duplication has been important in generating almost 1/3 of the current oikosin complement, with serial duplications up to 8 paralogs in one family. Expression pattern analyses revealed that individual oikosins are produced from specific fields of cells within the secretory epithelium, but in some cases, migrate up to at least 20 cell diameters in extracellular space to combine in defined house structures. Interestingly, peroxidase and secretory phospholipase A(2) domains, implicated in innate immune defence are secreted from the anlage associated with the food-concentrating filter, suggesting that this extra-organismal structure may play, in part, such a role in *Oikopleura*. We also show that sulfation of proteoglycans is required for the hydration and inflation of pre-house rudiments into functional houses. Though correct proportioning in the production of oikosins would seem important in repetitive assembly of the complex house structure, the genomic organization of oikosin loci appears incompatible with common enhancers or locus control regions exerting such a coordinate regulatory role. Thus, though all tunicates employ extracellular matrices based on a cellulose scaffold as a defining feature of the subphylum, they have evolved radically different protein compositions associated with this common underlying structural theme.

Levi T, Kilpatrick AM, **Mangel M**, Wilmers CC (2012) Deer, predators, and the emergence of Lyme disease. *Proceedings of the National Academy of Sciences of the United States of America* 109:10942-10947

**Abstract:** Lyme disease is the most prevalent vector-borne disease in North America, and both the annual incidence and geographic range are increasing. The emergence of Lyme disease has been attributed to a century-long recovery of deer, an important reproductive host for adult ticks. However, a growing body of evidence suggests that Lyme disease risk may now be more dynamically linked to fluctuations in the abundance of small-mammal hosts that are thought to infect the majority of ticks. The continuing and rapid increase in Lyme disease over the past two decades, long after the recolonization of deer, suggests that other factors, including changes in the ecology of small-mammal hosts may be responsible for the continuing emergence of Lyme disease. We present a theoretical model that illustrates how reductions in small-mammal predators can sharply increase Lyme disease risk. We then show that increases in Lyme disease in the northeastern and midwestern United States over the past three decades are frequently uncorrelated with deer abundance and instead coincide with a range-wide decline of a key small-mammal predator, the red fox, likely due to expansion of coyote populations. Further, across four states we find poor spatial correlation between deer abundance and Lyme disease incidence, but coyote abundance and fox rarity effectively predict the spatial distribution of Lyme disease in New York. These results suggest that changes in predator communities may have cascading impacts that facilitate the emergence of zoonotic diseases, the vast majority of which rely on hosts that occupy low trophic levels.

Satterthwaite WH, Hayes SA, Merz JE, Sogard SM, Frechette DM, **Mangel M** (2012) State-Dependent Migration Timing and Use of Multiple Habitat Types in Anadromous Salmonids. *Transactions of the American Fisheries Society* 141:781-794

**Abstract:** Anadromous salmonids vary considerably in their age at ocean entry, their timing of ocean entry within a year, and the extent to which they use multiple habitat types within freshwater. To better understand habitat use and movement timing, we developed a broadly applicable model of state-



dependent movements among multiple habitats, which was parameterized based on a case study of steelhead *Oncorhynchus mykiss* in a California coastal watershed with a seasonally closed lagoonal estuary. The model correctly predicted population-level patterns, including predominance of anadromy and a dominant smolt age of 2 years. In addition, the new model predicted the occurrence of small, lagoon-rearing fish (displaying smoltlike migratory behavior) that returned upstream and did not enter the ocean until the next year, whereas large fish emigrated from the lagoon into the ocean. The new model predicted all-or-nothing habitat use for fish of a given size, but we observed a mix of strategies for fish of the same size. Our modeling suggests that a mortality-growth rate tradeoff can explain much of the life history variation, but this tradeoff alone cannot drive a mixture of habitat use strategies by fish of a similar state (i.e., length). We predicted that a mixed strategy may develop as a consequence of density-dependent reduction in growth rates, arising as more individuals recruit to the originally preferable habitat. Higher risk in the higher-growth habitat may halt recruitment to the high-growth habitat even before growth rates are equalized. Uncertainty in rewards associated with the higher-growth habitat may also favor a mixed strategy in which only some fish accept the higher risk associated with increased growth opportunity. This model framework can be used to predict movement timing and use of multiple habitats for other salmonids and in other systems.

Sogard SM, Merz, JE. Satterthwaite WH, Beakes MP, Swank DR, Collins EM, Titus RG, **Mangel M** (2012) Contrasts in Habitat Characteristics and Life History Patterns of *Oncorhynchus mykiss* in California's Central Coast and Central Valley. *Transactions of the American Fisheries Society* 141:747-760

**Abstract:** *Oncorhynchus mykiss* exhibit high plasticity in their life history patterns. Individual life history decisions are hypothesized to result from genetic thresholds shaped by local adaptation, with variation in environmental factors influencing the trajectories of growth and condition (e.g., Fulton's K, lipid content). We compared growth rates and life history patterns in two coastal creeks (Scott and Soquel) and two Central Valley (CV) rivers (American and Mokelumne) in California. The two regions differed markedly in habitat and physical factors, including hydrograph timing and amplitude, temperature regime, and food availability (measured as drift). Growth rates of coastal age-0 fish averaged 0.1 mm/d in summer-fall and 0.2 mm/d in winter-spring. Growth rates of CV fish were up to 10 times faster than those of fish on the coast and had the opposite seasonal pattern, in which growth in summer-fall was faster than that in winter-spring. Fish growth also differed between CV rivers; the mean growth rates were 1.0 mm/d in summer-fall and 0.7 mm/d in winter-spring among American River fish and 0.7 mm/d in summer-fall and 0.5 mm/d in winter-spring among Mokelumne River fish. The life history expression and age structures of *O. mykiss* in the coastal creeks were similar, with populations being dominated by age-0 fish but including mature residents up to age 6. The two CV populations were strikingly different in life history expression. In the American River, a single cohort was present and nearly all fish emigrated in the spring following their birth year. In the Mokelumne River, a broad diversity of ages (up to 4 years) was present, with a large proportion of presumed residents. The observed variation in life histories aligned with predictions based on state-dependent life history models developed for the four streams, further demonstrating the adaptability of *O. mykiss* to contrasting rearing environments.

Winfried Lampert, Kathrin P.Lampert, **Petter Larsson** Induction of male production in clones of *Daphnia pulex* by the juvenoid hormone methyl farnesoate under short photoperiod, *Comparative Biochemistry and Physiology, Part C* 156 (2012) 130–133

**Abstract** The juvenile hormone, methyl farnesoate (MF), and its analog insecticides have been used successfully to induce the production of males in cladocerans under long-day conditions in the laboratory. However, without hormone addition *Daphnia* do not usually produce male offspring under long photoperiods, while short photoperiods are a stimulus for the induction of males. We used 21 clones of *Daphnia pulex* differing in their propensity to produce males under short-day conditions to test whether the treatment with MF would result in an additive effect of shifting the sex ratio towards males. Contrary to our expectations, clones with a high tendency of male production showed a reduced sex ratio in response to MF treatment under short-day conditions, but clones that produced normally few males or did not produce males were stimulated by 700 nM MF to produce up to 40% males. We suggest that the endocrine disruptive effect of MF or juvenile hormone analogs in the field may depend on the clonal composition of the cladoceran population and on the natural photoperiod.

This may affect the seasonal occurrence of sexual reproduction and eventually cause a mismatch between the presence of males and ehippial females.

**Jessica L. Ray, Birte Töpper, Shu An, Anna Silyakova, Joachim Spindelböck, Runar Thyrhaug, Michael S. DuBow, T. Frede Thingstad & Ruth-Anne Sandaa** Effect of increased  $p\text{CO}_2$  on bacterial assemblage shifts in response to glucose addition in Fram Strait seawater mesocosms

Abstract: Ocean acidification may stimulate primary production through increased availability of inorganic carbon in the photic zone, which may in turn change the biogenic flux of dissolved organic carbon (DOC) and the growth potential of heterotrophic bacteria. To investigate the effects of ocean acidification on marine bacterial assemblages, a two-by-three factorial mesocosm experiment was conducted using surface sea water from the East Greenland Current in Fram Strait. Pyrosequencing of the V1-V2 region of bacterial 16S ribosomal RNA genes was used to investigate differences in the endpoint (Day 9) composition of bacterial assemblages in mineral nutrient-replete mesocosms amended with glucose (0  $\mu\text{M}$ , 5.3  $\mu\text{M}$  and 15.9  $\mu\text{M}$ ) under ambient (250  $\mu\text{atm}$ ) or acidified (400  $\mu\text{atm}$ ) partial pressures of  $\text{CO}_2$  ( $p\text{CO}_2$ ). All mesocosms showed low richness and diversity by Chao1 estimator and Shannon index, respectively, with general dominance by Gammaproteobacteria and Flavobacteria. Nonmetric multidimensional scaling analysis and two-way analysis of variance of the Jaccard dissimilarity matrix (97% similarity cut-off) demonstrated that the significant community shift between 0  $\mu\text{M}$  and 15.9  $\mu\text{M}$  glucose addition at 250  $\mu\text{atm}$   $p\text{CO}_2$  was eliminated at 400  $\mu\text{atm}$   $p\text{CO}_2$ . These results suggest that the response potential of marine bacteria to DOC input may be altered under acidified conditions. <http://onlinelibrary.wiley.com/doi/10.1111/j.1574-6941.2012.01443.x/abstract>