



eLIFE – news on life at LIFE

Thursday 28 February 2008

Email to the editors: elife@life.ku.dk

Final deadline for editorial changes is Wednesday before publication of eLIFE on Thursday.

Editorial changes may occur in relation to the online newsletter.

As regards links in the newsletter, please refer to the Danish online version at the faculty's website http://www.life.ku.dk/Maalgruppe/medarbejdere/life_internt/nyhedsbrev.aspx

Gudrun Lau Bjerno, Editor, Communications, glb@life.ku.dk

Life at LIFE

Taste LIFE's own brew on Friday 29 February

To celebrate the 150th anniversary of Frederiksberg Campus, we have brewed our very own beer. There will be a beer-tasting ceremony for this special anniversary brew, which has been called Campus, for all employees and students at Frederiksberg Campus at an event at A-vej on Friday 29 February at 4-5 pm.

The beer has been brewed by Anders Busse Rasmussen who, in addition to still being enrolled on the agricultural economics programme at Frederiksberg Campus, is currently Managing Director of Indslev brewery.

At the event, everyone can taste the beer and also enter a competition to win a special limited edition three-litre bottle of the beer.

Campus has a deep chestnut-brown colour. It is brewed from malt made from wheat, barley, rye and spelt, and to which three different hop varieties have been added. Together, the ingredients produce a beer with a complex yet harmonious taste with a nutty aroma, which comes from the roasted spelt malt.

Programme

4 pm: Welcome by Søren Hartz, Faculty Director

4.05 pm: Introducing the Campus beer, by Anders Busse Rasmussen

4.10 pm: Beer as a science, by Associate Professor Henrik Siegumfeldt and Associate Professor Michael Bom Frøst

4.45 pm: Søren Holtz announces the winner of the competition for the three-litre special edition Campus

Win a great three-litre bottle of Frederiksberg Campus's new beer!

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 27 February 2007

For early risers: The history of Frederiksberg Campus on P1, Sunday 2 March at 9.07 am

On Sunday morning you can hear the history of KVL on P1. The broadcast is based on interviews with three researchers and the Dean Per Holten-Andersen.

The programme is called 'Alle tiders historie – Danmarkshistorie i flere etager, hvor fortid og nutid spejler sig i hinanden' and is written and hosted by Dorthe Chakravaty.

The programme is being repeated on Monday at 5.15 am and Tuesday at 2.03 pm.

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2007

Laughs and academic info – at the Junior Research Forum with the Astrup & Meyer duo

The main lecture hall was full to bursting point when Professor Arne Astrup from IHE and Associate Professor Claus Meyer talked about tasty food with a clear conscience.

Astrup & Meyer must know each other pretty well and be used to giving talks together. With their respective roles, they gave an entertaining, challenging and informative talk with an amusing repartee about healthy food that is tasty but not too fatty – highly relevant given the current obesity epidemic.

The Junior Research Forum events have been held since autumn 2005 on the initiative of Niels Brünner and Birger Lindberg-Møller.

The events are organised by DSR and the Library.

Read more at www.juniorforskercafe.life.ku.dk

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2007

2008 is a year for pooling our ideas for a new global agreement – Anders Fogh Rasmussen talked about climate policy at the University of Copenhagen

Scientific discussions are important. Research still needs to be conducted into climate change and its possible consequences, but there are lots of good reasons for switching energy supplies from fossil fuels to sustainable energy sources – both for security and supply reasons. It makes sense, and we also get a cleaner environment into the bargain. This was Anders Fogh Rasmussen's message when he visited the University of Copenhagen on 22 February to talk about climate policy and his expectations for the UN's Copenhagen Climate Summit next year.

Anders Fogh Rasmussen sees the chairmanship of the summit in Copenhagen as a both a huge challenge and a great opportunity. Hopefully the summit will result in a new green global economy, but with the USA, China and India presenting some of the biggest challenges.

See more at www.virtual.ku.dk

The event was part of the university's Climate Lecture Series.

On 26 February, the senior economist from The Office Change in London talked about 'The Economics of Climate Change'.

On 21 January, Professor Richard Levin from Yale University talked about sustainability on the Yale campus, and on 9 November last year a number of politicians held discussions with University of Copenhagen students at the electoral meeting: Young votes.

Gudrun Lau Bjerno, gfb@life.ku.dk – latest update 26 February 2007

The Zealand silk adventure

All things considered, it was a pretty poor show that Danes were not even able to produce their own silk, and as a result 'The Danish Silk Company' was founded in 1841 to encourage and advise people on silk cultivation. Under the motto 'Where the plough cannot go, where the scythe cannot mow, a mulberry tree should grow', mulberry trees were planted all around Copenhagen, and a number of Copenhagen women even started to cultivate silk larvae in the small flats in Strandstræde and at several locations on Østerbro.

The company floundered a few years later in 1847, probably due to a lack of know-how, and only a small number of enthusiasts continued to cultivate silk larvae. In the early 20th century, the Rev. Sommerfeldt in Roskilde cultivated silk larvae on the leaves of the *Scorzonera hispanica* plant, which went really well to begin with, but then the silk larvae went on strike because they missed their mulberry leaves. Close by however, a prison inspector, Mr Ammitzbøll, fortunately had mulberry trees in his garden, and when Sommerfeldt's larvae were able to tuck in to their favourite dish, they started spinning silk cocoons. Sommerfeldt and Ammitzbøll then formed the new 'Company for Silk Breeding and Mulberry Bush Cultivation in Denmark', and built a wooden Chinese-style pavilion for the breeding. The pavilion immediately became a popular tourist attraction for the people of Copenhagen, who were able to see 70,000 silk larvae loudly munching their way through piles of mulberry leaves.

Ammitzbøll believed that silk breeding offered an attractive source of extra income for poor farmer's wives, and he started to teach smallholder's wives the noble art of silk breeding, distributing free eggs and larvae and mulberry trees for planting. Silk larvae cultivation reached its highpoint during World War I, and at the end of 1922 no fewer than 67,000 mulberry trees had been handed out, which were largely planted on the smallholdings. However, Ammitzbøll failed to bear in mind that the women would be out weeding the fields in June and July, which coincided with the cultivation season for silk larvae, so the project never really took off with the farmer's wives.

Ammitzbøll's company existed until 1943, when it was replaced by 'Danish Silk Breeding', but due to internal problems it was soon replaced again by 'The County of Copenhagen's Silk Breeding Association'. To foster interest in silk breeding, the association produced a national flag woven from Danish-cultivated silk, and as King Christian X took a keen interest in Danish silk breeding, the flag was presented to him. Larva breeding also took off around Roskilde, and the silk was supplied to a Copenhagen stockings factory. However, as the prices

for silk stockings had fallen considerably since the 17th century, the silk breeding association's activities never became that extensive.

Towards the end of the 1970s, two women in northern Jutland decided to start farming silk moths again. Agnete Vester from Sindal in Vendsyssel and Bodil Iversen from Jyderup were pioneers in their way, but only as a hobby. Today, mulberry silk larvae are cultivated in Bornholm's Butterfly Park, where many schoolchildren take a keen interest in the process.

So, as the idea has been handed to you on a plate, I am now curious to see who will take the initiative to start 'The Faculty of Life Science's Silk Breeding Association'. We can then show the world at large that, in addition to mastering research and education within foods, veterinary medicine and natural resources, we also master the noble art of silk breeding. And it would be wonderful if we could present the Dean of Faculty with a genuine silk banner bearing our new horse logo – or, if that is a bit too ambitious, at least a couple of white stockings.

Despite the risk of our mulberry trees being stripped of all their leaves, I will reveal where they stand – at the entrance from Grønnegårdsvej at the southern end of the Rose garden. Moreover, we have a younger mulberry tree which can be found just north of Nordre Sidebygning; this tree has its own fabulous story, which will be told at a later date.

Kim Greiner, Senior Gardener

Gudrun Lau Bjerno, gjb@life.ku.dk – latest update 21 February 2008

Announcements

Spring is upon us. Reserve your plot and greenhouse space before it is too late

At Rolighedsvej and at Højbakkegård in Taastrup, a total of 3,500 sq m of greenhouses, divided into small units, are available for research, education and study purposes. All employees and students at the University of Copenhagen may use the facilities, and the gardeners on the sites attend to the plants and are available to assist you in all practical matters free of charge.

Should you need more space and would like to grow your plants out-of-doors, the experimental farms in Taastrup offer almost unlimited possibilities. 500 acres of sound Danish soil, cultivated conventionally, organically, unploughed or unfertilised. You may help decide, to accommodate your research ideas or experimental desires.

The experimental farms are manned by experimental technicians with broad knowledge and extensive experience from the performance of field experiments at all scales. On the technical side, we have traditional agricultural machinery, special experimental machinery and measuring equipment for measuring of all kinds of parameters in soil and plants.

Please contact us if you need more information or go directly to an application form via the website www.gf.life.ku.dk. Applications for plots for field experiments must be received by us by Friday 14 March 2008 at the latest due to the area planning.

Applications concerning greenhouse facilities may be submitted as needs arise.

Hanne Lipczak Jakobsen, Green Support Services, halj@life.ku.dk

Gudrun Lau Bjerno, gjb@life.ku.dk – latest update 27 February 2008

Check your payslip an extra time!

On 1 January the University of Copenhagen switched to eIndkomst (eIncome) and thus eSkattekort (eTax Card) (electronic reporting of tax information from SKAT to the Payroll System). In connection with the implementation of eSkattekort, the Payroll Department is unfortunately experiencing a number of implementation problems that, among other things, have resulted in SKAT submitting incorrect tax information to the Payroll System.

The Payroll Department therefore urges all employees to check the tax information on their payslip and inform the Payroll Department about any incorrect entries and to submit their tax card so that the entries can be corrected.

The Payroll Department apologises for the problems that the transition to eSkattekort has caused for some University staff.

Pernille Buch Michaelsen, Payroll Department, KVL, pmi@adm.ku.dk

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2008

Rats an increasing problem at LIFE

The mild Winter and few foxes mean that the rats are thriving, not only in the sewers, but also out in the open. Rats have been spotted at all three Frederiksberg areas. They have entered buildings, which has resulted in several unfortunate consequences.

Some rats have entered the buildings through basement windows which have not been correctly closed.

We therefore urge everybody not to leave windows and doors at ground level open.

The rats may be active 24 hours a day.

Rats have also been spotted coming up through floor drains with the grating removed.

If you see floor drains without grating, please contact the Buildings Management.

Niels Sonne, Buildings Management, nso@life.ku.dk

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2008

Lecture: Waiting for Spring in the Faculty Gardens – Thursday 6 March at 2 pm and Thursday 13 March at 4 pm

The lectures will start with the history of the faculty, Bindsbøll's main building and the main lecture hall, which is said to be the most beautiful in Northern Europe.

Kim Greiner has the following to say: "As we admire the murals, we will hear why the old lecture hall is brand new, and then we will take a look at the little horse statue, which was a preliminary study for the equestrian statue in Amalienborg Palace Square.

The slide show will follow the seasons in the gardens as well as exploring the details of Pontus Kjerrman's little garden nymphs, the hydrangeas and the venerable old oriental plane tree, before moving on to the protected

part of the gardens. We will learn more about the plants we see, including representatives of the largest tree species in the world and the world's oldest tree, and we will hear the story of the petrified tree that has now come back to life.

We will welcome the new weeping willow, which has replaced the old, hollow weeping willow whose fate many probably still remember, and the show will continue on to some of the gardens' annual flower beds and one of the largest and most magnificent carpet beds in Denmark. Then we will see the rose garden as well as the garden's collection of summer flowers, which we – in all modesty – call Denmark's largest collection. Finally, we will take a look at the collection of medicinal plants.

After a short break during which there will be a question-and-answer session, we continue the slide show through the Marble Hall to the area along Rolighedsvej to take a look at the main building, which is almost a true copy of Bernini's "Pallazza di Montecitorio" in Rome. The biggest attraction in the area, however, is Villa Rolighed, and we will hear the story of the little manor house from 1770 that went through so much before finally becoming the architectural pride of the Faculty of Life Sciences. We will end the tour by taking a look inside greenhouses and their collections of tropical and subtropical plants.

The lecture will end with "The Horrors of the Gardens", which is the hair-raising story of the gruesome Danish plant names found in the gardens. But like all fairy tales, this story also has a happy ending.

For more information on the lectures, please contact the garden office on tel. 35 28 21 82, mobile 40 58 98 25 or via email to kg@life.ku.dk.

Kim Greiner, Senior Gardner

The lectures will be held on Thursday 6 March at 2 pm and Thursday 13 March 4 pm in the faculty's main lecture hall (lecture room 1-01) in Bindsbøll's old main building at Bülowsvej 17, 1870 Frederiksberg C. Registration is not necessary.

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2008

Meet science: Lotte Holm, IHE: The food fight – Wednesday 5 September at 4.30-6 pm in Annex A, Studiestræde 6

Fish, fennel and functional food. We are constantly told what and how to eat.

Food and meals are part of everyday life. Today, star chefs, experts and food companies constantly interfere with our eating and shopping habits, putting health, the environment and gastronomy on the agenda. But how do the Danes relate to all this? How do we find our way through the maze of healthy and unhealthy foods?

Lotte Holm is a Professor of Food Sociology at the Department of Human Nutrition, University of Copenhagen, and researches the importance of food in everyday life. Come and hear her talk about how, among other things, trends decide what food is served on the Danish dinner tables and what this means for families and society at large.

This lecture is organised jointly between the University of Copenhagen and the Danish daily *Politiken*. The lecture lasts approx. 45 minutes and is followed by a debate chaired by the journalist Lars Hedebo Olsen. The event is open to everyone.

Time and place: Wednesday 5 March at 4.30-6 pm in Annex A, University of Copenhagen, Studiestræde 6, Copenhagen K. Admission is free.

Reserve a seat at www.politikenbillet.dk

[Meet science](#)

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2008

Rent your holiday home through the University of Copenhagen holiday fund

As an employee of University of Copenhagen you can rent an inexpensive holiday home.

Most of the University of Copenhagen holiday homes are located in Denmark, and two in Sweden, but you can also go to Paris, Barcelona and northern Greece.

Read more at www.ku.dk/ferie

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 25 February 2008

Seminar: Open countryside and rural district development – Thursday 10 April at 10 am - 5 pm in Vejle

Invitation to a public seminar about "The open countryside and the development of rural districts – when different municipal administrations have to cooperate, with Vejle Municipality as case". The seminar will be headed by the Master of Rural Area Development and Rural Administration, Forest & Landscape, in collaboration with NVC Vejle. The seminar is open to everyone.

The event will be held on 10 April 2008, 10 am - 5 pm at NVC Vejle's premises, Vedelsgade 6, 6000 Vejle.

Following the seminar there will be an information meeting about the study programme Master of Rural Area Development and Rural Administration (*Master i Landdistriktsudvikling og Landskabsforvaltning*), which will start with module 1 in autumn 2008. The meeting will be held in continuation of the seminar, i.e. from 3 pm.

For more information about the event, contact Hanne Tanvig, tel. 3533 1710 or hwt@life.ku.dk, or Jess Ingo Jensen, tel. 7681 2403 or jeje@vejle.dk. Link to programmes for the [seminar](#) and for the [information meeting](#).

You can attend either in seminar or the information meeting, but you are also welcome participate in the entire event.

You must register for the event by 4 April 2008 with Lisbet Daell Kristensen, tel. 7681 2406 or lidkr@vejle.dk.

When registering, please state whether you wish to participate in the entire event or just the seminar or the information meeting.

Admission to the seminar is free for students enrolled in the study programme. Non-students will be charged a fee of DKK 300 which covers meals etc. at the seminar. (Admission to the information meeting is free).

Please note that we will also be holding a seminar on 22 May in Svendborg where the theme is Urban

development and the rural zone (*Byudvikling og landzonen*), and this will also be followed up by an information meeting. See the detailed programme (from 1 March) at www.landmaster.dk.

Gudrun Lau Bjerno, glb@life.ku.dk – latest update 22 February 2008

Education

EDU Danmark invites you to an event about studying abroad on Saturday 1 March at 11 am - 3 pm at Niels Brock

EDU Danmark invites students to an event about studying abroad. These events are aimed at students considering studying abroad – from one semester and upwards. You will be able to meet representatives from various universities in Australia, New Zealand, the USA, Canada, Hong Kong, Singapore and the UK.

Event venues:

Saturday 1 March at 11 am - 3 pm at Niels Brock, Kultorvet 2, Copenhagen K.

Monday 3 March at 9-11 am at Vitus Bering, Østergaardsvej 4, Horsens

Monday 3 March at 1-3 pm at the University of Aarhus, Taasinge. 3, building 1441

Tuesday 4 March at 9-11 am at University of Southern Denmark, Campustorvet, Odense

Tuesday 4 March at 1-4 pm, RUC (Roskilde University), Universitetsvej 1, Roskilde

Read more about EDU Danmark at www.edu-danmark.dk

Annica Nielsen, Internationalisation and Developing Countries, anie@life.ku.dk

Gudrun Lau Bjerno, glb@life.ku.dk – latest update 27 February 2008

Student Services offers: Innovation and entrepreneurship, Study Techniques and Study Culture and Bachelor project I + II (Vet.)

Student Services has three good offers for you:

[Bachelor project I + II \(Vet.\) Monday 3 March at 4.15 pm](#)

[Study Techniques and Study Culture, Friday 7 March at 1- 3 pm, room 3-14](#)

[Innovation and entrepreneurship – realise your ideas potential, Monday 10 March at 5.30 – 21 pm in lecture hall 3-14](#)

Søren Hedegaard Sørensen, Studenterservice, shs@life.ku.dk

Gudrun Lau Bjerno, glb@life.ku.dk – latest update 27 February 2008

International pool for support of student activities – the application deadlines are 3 March, 12 May and 23 June.

Would you like receive support to participate in international study activities, conferences, workshops and the like?

Send an application to KINU (Coordination Committee for Internationalisation and Collaboration with Developing Countries) which allocates funds from the pool.

Application deadlines for Spring 2008: 3 March, 12 May og 23 June.

Would you like to know more? Read more at:

http://www.life.ku.dk/om_kv/organisation/raad_udvalg/kinu/international_pulje.aspx

Michael Guldager, Internationalisation and Developing Countries, mgu@life.ku.dk

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 22 February 2008

Staff news

Winners of the Green Baton: natural resource student Torben Frandsen and scientific assistant Kim Skov Jensen, Forest & Landscape

The University of Copenhagen and Siemens have chosen the winner of the Green Baton. The first prize of DKK 100,000 went to natural resource student Torben Frandsen and scientific assistant Kim Skov Jensen, Forest & Landscape, for their proposal 'the Green Board'.

The Green Board is to increase awareness of sustainability at the individual faculties. Using a score board, the faculties are to publish key figures such as current energy consumption, electricity consumption relative to the purchase of sustainable energy, the number of parked cars and bicycles on campus as well as CO₂ emissions.

The goal of the Green Baton is to encourage students to develop ideas for initiatives for the University of Copenhagen's campuses that can lead to energy savings or greater use of alternative and sustainable sources of energy. The competition was opened by Margrethe Vestager, MP, at a ceremony on 3 December 2007.

- It is important to involve the students in the work to make the University of Copenhagen a sustainable university. Many students learn about the climate and sustainability during their studies, which makes them an important resource, says Pro-rector Lykke Friis.

A total of nine proposals were submitted. The second prize went to science student Thomas Kjeldsen for his proposal on how to achieve power savings in IT facilities, while the third prize went to science student Mathias Bjerre and PhD student Tom Weber for their proposal for an energy savings competition at the University of Copenhagen.

The first prize of DKK 100,000 is sponsored by Siemens. The winners intend to use the money to implement their Green Boards at the University of Copenhagen.

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 26 February 2008

25th anniversary: Associate Professor Allan Roepstorff, IVP, Friday 14 March – reception at 2 pm in room A218, Dyrølægevej 100

To mark Associate Professor Allan Roepstorff's 25th anniversary in public service, a reception will be held on Friday 14 March 2008 at 2 pm in room A218, Parasitology, second floor of building 1-05, Dyrslægevej 100. Everybody is welcome.

Nora Ottens, Department of Veterinary Pathobiology, noo@life.ku.dk

Gudrun Lau Bjerno, gjb@life.ku.dk – latest update 22 February 2008

Inaugural lecture: Affiliated Professor Knud Erik Bach Knudsen – Friday 29 February, at 1 pm in the library of the Anatomy building

Inaugural lecture: Nutritional and functional properties of dietary carbohydrates by Affiliated Professor Knud Erik Bach Knudsen.

Friday, 29 February at 1 pm in the Library on the 1st floor of the Anatomy building (building 1-04), Grønnegårdsvej 7, followed by a reception in the Zoological Collection at 2 pm.

Kind regards,

Preben Fogd Jørgensen, Head of Department

Gudrun Lau Bjerno, gjb@life.ku.dk – latest update 21 February 2008

Research

International researchers exchange knowledge on cancer in companion animals

Over the next few days, some of the world's top veterinary researchers will meet at the Faculty of Life Sciences to exchange the latest knowledge on cancer in companion animals. The conference will bring together leading European and American experts in the field.

It is the first time that the world's two leading societies for veterinary cancer research are holding a joint conference, making the event, which is held from 28 February - 1 March, even more prestigious. Researchers from countries as far away as Mexico, Chile and Japan will attend the conference, which has received considerable support from the pharmaceutical industry in the form of sponsorships.

It is wonderful that we have managed to bring the conference to Copenhagen, and there has been an overwhelming interest in attending it, says Professor Annemarie T. Kristensen, who is one of the main organisers. She hopes that the event will contribute to strengthening international cooperation within veterinary cancer research, which is also very important to research into human cancers.

Animal research – human research

Annemarie T. Kristensen conducts research into companion animals and cancer at the Faculty of Life Sciences and is chairwoman of the faculty's new action area SHARE, which – like the conference – is aimed at ensuring cooperation and synergy between research into animal and human diseases.

Companion animals spontaneously develop some of the same lifestyle diseases as humans, including cancer. By seeking greater knowledge on the diseases found in companion animals and how they can be treated, the researchers are more likely to be able to prevent and treat the same diseases in humans in the long term. This means that in the long term this knowledge could help give both animals and humans a healthier life.

The European Society of Veterinary Oncology (ESVONC) and its American counterpart, the Veterinary Cancer Society (VCS) are joint organisers of the conference in Copenhagen.

The conference is held in the main lecture hall at the Faculty of Life Sciences from 28 February - 1 March 2008. Participation is only possible upon prior registration and payment of a fee, and the 165 seats sold out in no time.

Read more at: www.worldvetcancer2008.dk

The action area SHARE – Synergy in Human and Animal Research– was launched in 2007 and brings together researchers from all the veterinary departments at the Faculty of Life Sciences.

Read more at: www.share.life.ku.dk

[Read the press release](#)

Contact: Professor Annemarie T. Kristensen, tel. +45 23494154

Gudrun Lau Bjerno, glb@life.ku.dk – latest update 26 February 2008

Green areas help us combat floods

Green areas play an important role in relation to global climate change, the impact of which will become particularly evident in the cities. Among other things, they can form part of solutions aimed at mitigating the effects of the heavier downpours that climate scientists expect to see in future, thereby saving the citizens costly investments into expanding our sewer system.

The Danish Meteorological Institute (DMI) climate scenarios predict that in the period up to 2100, we will see an uneven distribution in precipitation with less summer rain and more precipitation in winter. And since the rain will generally be more torrential, there is a risk that more threatening floods will occur.

The initial consequence of the torrential rain, which was frequent in e.g. summer 2007, is that the sewers cannot cope. Consequently, we can expect even more uncontrolled flooding of roads and basements and discharge of untreated wastewater into the sea, lakes and rivers. Here, urban green areas can play a special role in relation to preventing these problems.

“To exploit the possibilities offered by the green structure, it must be planned at all levels – from the local level to the entire urban region – and it is necessary to involve all areas, both publicly and privately owned, in the solutions. Furthermore, we need to launch more demo projects to document the effect of the green structures,” says senior researcher Marina Bergen Jensen, Forest & Landscape.

At present, senior researcher Marina Bergen Jensen at Forest & Landscape at the University of Copenhagen is working with a number of players to establish how the urban landscape can contribute to managing rainwater and thereby reducing investments in the sewer system.

“If instead of continuing to expand the sewer system, we involve green areas and the earth beneath the city in the strategy, we can probably achieve some easy benefits. With drainage based on percolation, investments in pumps, pipes and basins can be reduced. At the same time, a more decentralised structure involving a division into more and smaller areas will minimise the problems caused by a lack of capacity in the event of heavy downpours and the bottlenecks that inevitably form in the sewers, thereby minimising the damage caused by flooding,” explains Marina Bergen Jensen, Forest & Landscape.

Forest & Landscape has speeded up its research as the conventional principles for managing the city's water

supply are about to change. At the same time, the results will be presented to the city planners of the future, at least those students specialising in 'Landscape Architecture and Urban Design' at the Faculty of Life Sciences. The interest and efforts are spurred by climate change and urban growth, among other things, which are putting a strain on the city's drainage systems. This is coupled with a greater demand for clean and accessible water in the urban landscape, i.a. for recreational purposes.

"Water has a lot of potential that it would be a shame not to exploit. If, in one area, you have sewer capacity problems and choose to solve them by means of percolation solutions, why not coordinate the investment with other initiatives in the city? Many neighbourhoods, both residential and industrial areas, can be made more attractive by means of blue and green elements. Drainage solutions can also be combined with teaching activities, play and innovation, for example in the form of outdoor labs and playgrounds for children and adults, just as coordination with watercourse management and forestation and even traffic control may be relevant. In this way, the drainage solutions not just ensure a passable and environmentally sound city, but can also support the city's other visions and policies in entirely different areas," says Marina Bergen Jensen, Forest & Landscape.

Delay and percolation can take place in both open and closed rainwater systems. This makes it possible to drain heavily built-up urban areas decentrally, for example via delaying systems on roofs and in open spaces and percolation via underground fascines. Whether it is an open or closed system, it is important to control the quality of the water. When the rainwater washes over surfaces in the city, not least the areas which carry a great deal of traffic, it becomes heavily polluted. So in order to protect human health, the environment and the groundwater, the pollution must be removed from the water before it is discharged into the environment, displayed around the city or percolates into the groundwater. In Ørestad, Marina Bergen Jensen is currently testing a new method for quick and effective treatment of rainwater from roads. So far, the results are very promising.

The challenge is both to break away from traditional thinking – the central sewer principle is 150 years old – and to document that delays in the city's green areas and percolation via the earth beneath the city can actually work. In particular, documentation needs to be provided in terms of dimensioning and control of the considerable amounts of heavy metals, animal droppings and other harmful substances found in the runoff. This important issue is being addressed i.a. by the Danish project 'Black, Blue and Green', of which Marina Bergen Jensen, Forest & Landscape, is project manager.

"Thankfully, many cities are making good progress, and a number of research projects in the area have been launched. This has gradually led to the formation of a strategy where the existing sewers are used more intelligently, the urban landscape is involved in the best possible way, and the content of pollutants is reduced or removed before the water is used for recreational purposes or is discharged to recipients," concludes Marina Bergen Jensen, Forest & Landscape.

Senior Researcher Marina Bergen Jensen, Forest & Landscape, mbj@life.ku.dk

Read more about the 'Black, Blue and Green' project at www.2bg.dk

Press release

Gudrun Lau Bjerno, gib@life.ku.dk – latest update 21 February 2008

Grants

Research funds etc.

See the online version at

http://www.life.ku.dk/Maalgruppe/medarbejdere/life_internt/nyhedsbrev/forskningsmidler.aspx

Here you will find all calls with active links.