

Algae on Bonaire

They are easier to grow in the tropics | p.6 |

Fish detective

The Sherlock Holmes of the North Sea | p.14 |

Ape-watching

The student who is fascinated by bonobos | p.24 |

RESOURCE [EN]

For everyone at Wageningen University & Research

no 5 – 12 Octoberr 2017 – 12th Volume



Are cows going to specialize?

p.12

INSPECTION ROBOT

It is hard to imagine farming or horticulture without robots nowadays, and a lot more of them are promised in future. This was clear on Friday 6 October at a demonstration by Agro Food Robotics, the umbrella body for all the 60-odd Robotics researchers who recently started collaborating at WUR. One hundred men – and a handful of women – took a look around eight sample projects, including this robot which can inspect fruit for blemishes.  RK, photo: Guy Ackermans



read the whole story
on resource-online.nl

>> CONTENTS

no. 5 – 12th volume



>> **8**

FROM ALL SIDES

Insects in all their glory



>> **18**

IN THE FOOTSTEPS

The same uni as Mum and Dad



>> **22**

FEED THE BEAST

Can the bureaucracy be tamed?

AND MORE

- 4 Good news in the coalition agreement**
- 5 Hacking to solve the manure problem**
- 7 Away with the disposable cup**
- 8 Nature in Gabon will suffer**
- 9 Weeds in rice fields**
- 16 Workplace: the beadle**
- 26 Taking on the Green Challenge**
- 27 Meanwhile in Spain /Catalonia**

ORGANIC CAMPUS

It is common knowledge that you pick up the real news out on the street or at the coffee machine. I usually get my coffee in Atlas, and for the past two weeks the main topic of conversation has been 'the campus parking problem'. Unilever's building project has wiped my parking place off the map. A luxury problem, if you ask me, but not everyone sees it that way. It is fascinating to see how differently people see our campus. Today I went to a talk show about the sustainability of the campus. All sorts of visions of this place were presented: a place where 15,000 people gather to work and study, a 'sticky place' where people should like to stick around and do more than just work, a 'living lab' where we research how to cope with growth, or an ecological zone connecting the Veluwe and the Utrechtse Heuvelrug nature reserves. There was even someone who sees the campus as a living organism with incoming and outgoing currents. Not surprising the talk show did not generate a shared vision. And how do I see the campus now? Well, I'll have to think about that at the end of the day as I walk to my car.

Edwin van laar



>> [Stroopwafels as icebreakers](#) | p.11

'BUILD MORE STUDENT ROOMS ON CAMPUS'

WUR should cater for the influx of students by building more housing on campus, decided the municipal council this week.

Increasingly, Wageningen council see the growing number of students as a problem. Students are welcome but it is not easy to provide enough housing for them. And the council is afraid that construction of housing for the elderly, starters, people who have been granted asylum, and 'knowledge workers' could get squeezed out. So as well as more housing in the town, it is both necessary and feasible to build accommodation for students on campus, states the council in an amendment. The council also supported tasking the mayor and aldermen with knocking at the door of nearby Ede and Renkum councils to help address the shortage of student housing. The prediction is

that about 1400 more rooms will be needed between now and 2022. The mayor and aldermen have indicated possible locations for additional student accommodation in Wageningen: at Bornsesteeg and Asserpark, behind the Aula, the former post office, Rijn IJssel vocational college on the Marijkeweg, and the Olympia hall. The council adopted this proposal, but that does not necessarily mean student accommodation will actually be built at those locations. There are other ideas for the post office, for instance (related to art, culture and pop music) and several parties would prefer to see the Olympia hall site used for senior citizen housing.

Until a couple of years ago there was something of a taboo on living and shopping on campus. But partly because of WUR's growth, the local authority has changed its mind



PHOTO: SVEN MENSCHER

Students demonstrate outside the town hall to draw attention to the growing shortage of accommodation.

about this. The result was the building of Campus Plaza, with 400 student rooms. According to spokesperson Simon Vink, the campus is by no means full. 'The campus goes up to AlgaePARC. There is space for students on the Kielekampsteeg, for instance. And the campus includes land on the other

side of the Mansholtlaan as well.' Before the council meeting, the Student Alliance Wageningen (SAW) and Connect Wageningen demonstrated outside the town hall. Their 'wake-up call' was intended to draw attention to the growing shortage of student accommodation. **© RK, EvK**

COALITION AGREEMENT HAS GOOD NEWS FOR WUR

The newly formed Dutch government intends to bring 'green' education under the ministry of Education. This could mean more education funding for Wageningen University & Research. Also, an additional 200 million euros is being allocated to applied research, says the coalition agreement for the Rutte III cabinet.

The transfer of green education from the ministry of Economic Affairs to the ministry of Education may work out well for WUR, as long as that ministry fully offsets the growth in student numbers at Wageningen University. The chances are that it will do so, because the cabinet wants to review the funding system for higher education, 'with particular attention to technical programmes'. This implies that the technical universities and WUR will get a larger share of the education budget. The cabinet is also raising the

budgets for both fundamental and applied research by 200 million euros each. And it will twice be making 50 million euros available for research infrastructure at the institutes for applied research.

The basic student grant is not being reinstated, but the cabinet is going to halve tuition fees for the first year, starting from 2018. The cabinet will also be keeping an eye on the accessibility of higher education. Universities have to be able to give good reasons for selecting students, and use a transparent selection procedure, otherwise the government will intervene.

The cabinet wants to put the brakes on the increase in English-taught education programmes. There will be stricter supervision of compliance with the rule that programmes should only be in English if it has added value, the quality is adequate and there are enough programmes in Dutch. **© VK**



PHOTO: GUY ACKERMANS

KIDS' UNIVERSITY

Looking for worms on campus, taking photos with your smartphone for the GrowApp, or sitting in a real lecture theatre listening to a professor. These were some of the things primary schoolchildren could do at the WUR *Kinderuniversiteit* on 4 October. At this annual event, two professors

get to teach the children. The year the honour went to biologist Arnold van Vliet and meteorologist Bert Heusingveld. **© VK**

See the photo series on resource-online.nl.

FARMERS AND IT EXPERTS IN MANURE 'HACKATHON'

At first glance, there doesn't seem to be much connection between hacking and manure. And yet IT specialists and manure experts are getting together on Thursday 12 October for the *MestHack* (Manure Hack), a 32-hour 'hackathon' at the Dairy Campus in Leeuwarden. Their aim is to think up smart applications for farmers and government bodies, to help them tackle the issue of overfertilization.

Participants in the Manure Hack include civil servants, scientists and information technologists in the field of agriculture, as well as information technologists from outside that field, says Anne Bruinsma, project leader at FarmHack.nl and co-organizer of the Manure Hack. 'If you want to innovate, you need people who

don't have much inside knowledge, but who do know exactly how to work with data.'

Most people associate 'hacking' with breaking in to computer systems. 'But hackers have very useful skills such as data visualization,' says Bruinsma. FarmHack.nl therefore asks hackers and other IT experts to help them brainstorm about serious problems by joining in 'hackathons'. Participants in the Manure Hack will work in teams on the question of how data about issues such as manure transportation and environmental impact can be stored and retrieved. At around three o'clock on the second day, all the teams will pitch their ideas and the jury will pick the winning IT application. FarmHack.nl will support the winning team with PR and the implementation of their idea. **RDV**

© COLUMN | STIJN

First-year weekend

I was never taught by him when I was a student. But he is legendary. Gert Peek is a soil science teacher to the bone. He is so nice, he bagged the Teacher of the Year award, and I hear nothing but enthusiastic stories about the man whose soil drill is almost an extra limb by now.

Personally I've never even held a soil drill. I stand in for someone in fieldwork now and then, and that's about it. So the email I got from two students of Landscape Architecture took me by surprise. Gert Peek can't come this year, they write, so the first-year committee is looking for someone else to give the lecture during the first-year weekend. And my name had come up.

What an honour. A lot of unpaid work too, but I can't say no to such a flattering request. A short briefing follows, in the Forum.

'Do you know who I am, actually?' I ask. 'No, we looked up your photo.' I gulp. 'Well, I'm not a soil scientist,' I go on. 'I'm quite happy to come and talk, but I'll do so from a broader perspective.' 'That is fine,' they said with relief. The content of my lecture doesn't seem to matter. Disappointed, I ask when and where the weekend is, exactly. 'Um...' they say in unison. 'I'll send you the plans,' says one of them, reaching for his mobile phone.

Mildly offended, I cycle back to my office. I give myself a pep talk: it's very nice that they want a lecture at all, when it's not compulsory. And that they want to hear a bit more about my subject – and during the weekend at that.

In my office I check my email. I skim through the plans. The lecture is crucial, I read: we absolutely must find a substitute, otherwise we won't get funding from the university. **R**

Stijn van Gils (30) recently graduated with a PhD for a thesis on ecosystems services in agriculture. He writes fortnightly about his struggles with the academic system



in brief

>> TARTHORST Cycle lane

The thousands of cyclists who pass through the Tarthorst neighbourhood every day will soon be using a cycle lane. The road around the shopping centre will also become a one-way street. This is the compromise most likely to win support from local politicians, judging by the meeting at the municipal council this week. The many students cycling through the Tarthorst have been the cause of dangerous situations for years. The neighbourhood is particularly busy in the rush hour, when the pupils at two primary schools and students in a hurry cross each other's paths. The council will make a decision about the cycle lane next month. **RK**

>> DNA OF LETTUCE Deal with Chinese company

The Chinese genomics institute BGI is going to decode the DNA of about 2500 varieties of lettuce from the Netherlands Centre for Genetic Resources (CGN) free of charge. The CGN, part of the Plant Sciences group, has 2500 species of both wild and cultivated lettuce which could have characteristics that are of interest to plant breeders. In exchange for the free service, the CGN will only make the digital genomes public one and a half years after completion of the project. In that time, WUR and BGI can get a head start in gaining expertise on interesting genes for new lettuce varieties. **AS**



PHOTO: ROELOF KLEIS

Artist Masha Ru (left) with her pots of edible soil.

>> ART PROJECT Eating soil

Artist Masha Ru was at Impulse last week to give a sneak preview of an exhibition about geophagia – the scientific name for the act of deliberately eating soil – which will come to campus early next year. The Russian artist has been eating soil since she was a child, because she likes it. 'It is just like drinking a glass of wine,' she says. Under the name Museum of Edible Earth, she has put together a collection of edible soil types. A small selection of them was available for viewing – and tasting – in Impulse on 2 October. The entire collection will be on display in Wageningen at the beginning of next year. **RK**

GREENHOUSE HORTICULTURE EMITS LESS CO₂

In 2016, CO₂ emissions in Dutch greenhouse horticulture went down again, by 0.2 megatons to 5.6 megatons. This means Dutch horticulturalists are 0.6 megatons below the original climate target for 2020. If they are to meet the new, tougher climate target for 2020, they need to reduce their emissions by a further 1 megaton.

These figures come from Wageningen Economic Research's Greenhouse Horticulture Energy Monitor 2016. In the period 2010-2016 the total CO₂ emissions went down by 2.5 megatons. This was because the area under horticulture has shrunk, horticulturalists sell less electricity, buy in less heating, and produce or buy in more sustainable energy. They continued to save more energy too. Compared with the baseline year, 1990, emissions of greenhouse gases went down by 41 percent, more than the 30 percent drop the sector had agreed on with the government.

The horticulturalists have now agreed to produce even less CO₂. To achieve that, the proportion of their energy that is sustainable, which grew by 0.6 percent to 5.5 percent in 2016, needs to go up even more. Greenhouse horticultural companies are investing in geothermal heating, for example, but due to technical problems in geothermal projects, and a drop in new sustainable energy projects, the proportion of sustainable energy in 2016 rose less than expected. **AS**

WUR TO SET UP ALGAEPARC ON BONAIRE

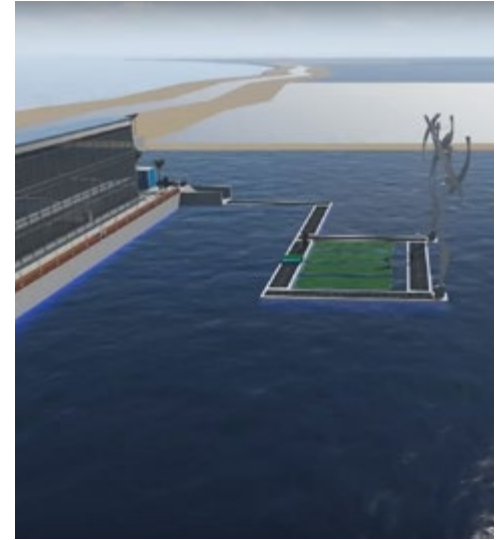
Wageningen University plans to develop an algae park on Bonaire. The Antillean island's salt pans — shallow basins used to produce sea salt — are well suited for use as floating algae reactors, says Bioprocess Technology professor René Wijffels.

Bonaire's economy is currently highly dependent on tourism, and the island administration wants to diversify. They therefore asked Wijffels whether he would be able to set up an algae park for the supply of energy. That is not yet feasible, but Wijffels does think that fish feed and animal feed could be made from algae on Bonaire.

That is why Bonaire, the ministry of Economic Affairs and OCTA (the EU's innovation programme for overseas countries and territories) are now funding a feasibility study for the cultivation of algae on the island to the tune of 200,000 euros. The travel agency TUI is also contributing funds. It wants to explore the options for sustainable air transport and ecotourism.

In parallel with the feasibility study, the Dutch Organization for Scientific Research (NWO) is financing two PhD candidates to work on improving algae cultivation. The first will look for algae on Bonaire that can cope with high temperatures, the second will design the cultivation system. The initiators also want to set up lab facilities and a pilot plant for growing algae on Bonaire.

The algae park on the island will be a key step in putting the technology for cultivating algae into practice, says Wijffels, be-



An impression of the planned AlgaePARC on Bonaire. The number of floating algae reactors can be extended as required.

cause the tropics are the most promising location for this. 'In the first place you have more sun, which increases productivity. Secondly, there is less variation in temperatures and the amount of light, which gives you more control over the process.' Eventually, Wijffels plans to produce kerosene from algae. But in the short term his aim is to produce algae meal for livestock farmers and aquaculture on the island.

AlgaePARC in Wageningen, which was established in 2010, will continue to play a key role in algae research. **AS**

PLANS FOR DREIJEN AND DUIVENDAAL

Progress has been made in the development of the WUR Duivendaal and Dreijen sites. Potential buyers have emerged for both former 'campuses'.

Kuin Vastgoed and Ter Steege Gebiedsontwikkeling will draw up a vision for the Dreijen site with Wageningen University & Research. A detailed urban development plan will be produced for part of the site, namely the area that is already part wasteland between the Ritzema Bosweg and the pond, bordered on the left and the right by the Arboretumlaan and Dreijenlaan. The municipal executive (mayor and aldermen) has agreed to the proposed development, but the town council still has to give its consent. The development of the Dreijen site has been on hold for two years because previ-

ous plans were rejected by the council. They objected to the number of high-rise buildings. The municipal executive says the new plans should deliver housing for senior citizens, starters, knowledge workers and young dual-income couples.

Headway has also been made in the development of plans for Duivendaal. Two (as yet anonymous) regional businesses are negotiating with WUR on the purchase and development of the site where the old WUR administration centre used to be. The companies want to use the buildings as offices, studios, meeting rooms and residential accommodation. The municipal executive says the plans fit in with the guidelines that were drawn up for Duivendaal last year. The plans also allow for some limited student accommodation. There



The provisional area plan for Duivendaal

have already been students living temporarily in the former administration centre for a couple of years now. **RK**

GREEN OFFICE WANTS TO GET RID OF DISPOSABLE CUPS

Koptopus is the name of the creature made of disposable cups which graced the Sustainability Market in the Forum on Monday 9 October. One of the aims of the market, organized by Green Office Wageningen, was to draw attention to the large amounts of garbage generated by students and staff on campus. The organization presented a possible solution too: the KeepCup.

Koptopus's name is a reference to the plastic soup in the oceans, explains Ines Weingarten of Green Office. It took her colleagues and her an hour to cobble the creature together. The several hundred disposable cups it is made of were salvaged from garbage in the Forum. And that is just a fraction of the waste produced in one day.

Originally, Green Office wanted to dump the entire garbage heap on the podium in the hall of the Forum to give people an idea of the scale of the problem. But the podium was already full of market stalls with sustainable initiatives and products. Including the KeepCup, a mug made of recycled



Koptopus, an octopus made of disposable cups, graced the Sustainability Market in the Forum on Monday. The KeepCup (right) will be on sale in the canteens from this week.

plastic which went on sale this week at catering outlets on campus.

The person behind this offensive against the plastic cup is Lilo Trogisch. The German PhD candidate (Sociology of Development and Change) was horrified when she arrived on campus last year. 'Shocking', was how she described the amount of plastic used every day in the canteens. 'And that at a sustainable univer-

sity like Wageningen.'

Trogisch discovered the KeepCup in Sydney – it is an Australian 'invention' – and made the cup a hit on the campus there. Then she repeated the trick in London, and now it's Wageningen's turn. The Sustainability Market in the Forum marks the start of Seriously Sustainable Week, during which sustainability-related activities will be going on daily up to and including Sunday. **BRK**



PHOTO: GUY ACKERMANS

'BAKFIETS' DEMO

In honour of WUR's centenary in 2018, *Resource* has been delving into the archives. This photo from 1988 shows six students who, according to the description on the back, are demonstrating on Prinsjesdag, the day the Dutch monarch gives a speech outlining government policy for the coming session of parliament. Photographer Guy Ackermans, who took this picture 29 years ago, says it was just one of many student demonstrations in that period. Exactly what the students wanted to draw attention to by riding their cargo bike down the High Street, he can't remember. Do you know something about this photo or others in the series *100 years of... laughter*? Drop in on the editors, then, or send an email to vincent.koperdraat@wur.nl.

See the photo series
'100 years of... laughter'
on resource-online.nl



PHOTO: GUY ACKERMANS



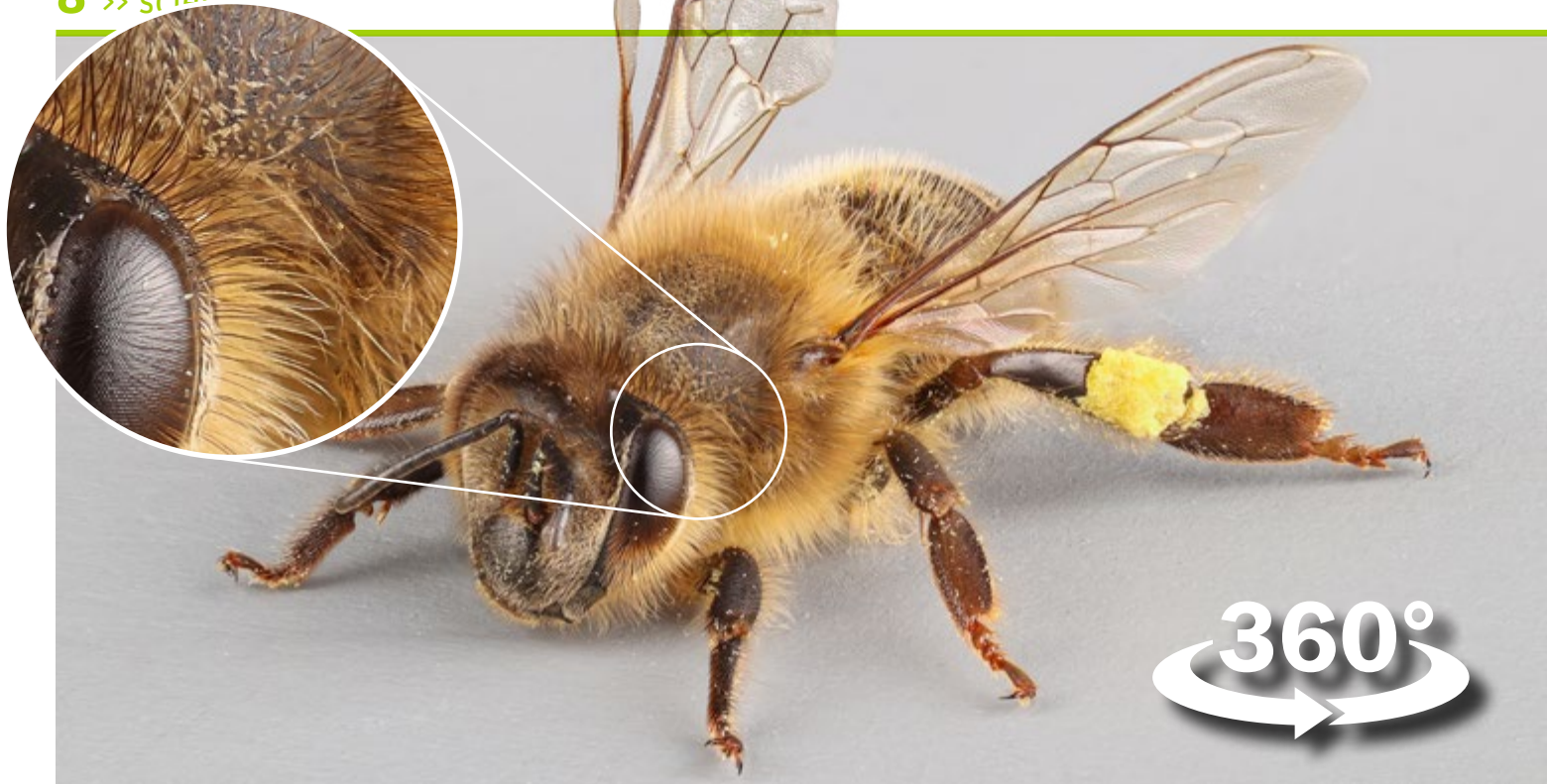


PHOTO: HANS SMID

360° IN FOCUS

Entomologist Hans Smid has long since earned his stripes as an insect photographer, but in a new project he has now produced even sharper images of these animals. He selected 25 different insects and photographed them all thousands of times with the same camera settings, moving the camera slightly

all the time. He then 'piled up' these photos until he got one complete sharp image. The new images, including this one of the honeybee, are on Wageningen Academic Publishers' public e-learning website, and thanks to 'rotary view', they can be seen online. The photo gallery is an extra to go with the new book written by Smid's colleague Arnold van Huis: *Insects as food and feed, from production to consumption*. **® RK**

Look at the photos and read the whole story on resource-online.nl

WARMING DISTURBS NATURE IN GABON

The tropical rainforest in Gabon will look quite different in 70 years' time to the way it looks now. There will be fewer plant species, and often in new combinations. In some places three quarters of the species will be different to the ones present now, suggests a study by Biosystematics PhD candidate André van Proosdij.

To help them understand the distribution of species, biologists make use of distribution models which track the relations between the known habitats of a species and various climate and soil variables. Using such models you can predict how a species will react to something like climate change. But it only works if you put correct data into the model, says Van Proosdij. And that is problematic because little or no data is available for many tropical plant and animal species. 'Of the estimated 7500 plant species found in Gabon, only 5300 are documented. And more than 2500 of those species have only

been seen five times or fewer. How can you make a reliable model with so few sightings?

And yet modelling is in full swing. 'That is what surprised me most on my PhD trip. Distribution models are used a lot but without establishing a lower limit to the number of sightings needed for a reliable model.' Van Proosdij therefore developed a method for determining that lower limit, which proved to depend on the specific area being studied and the rarity of the species. Fewer sightings are required for rare species than for common species.

Van Proosdij then applied the method to Gabon, a biodiversity hotspot in Central Africa. To this end he calculated the current and future distribution of each of the thousands of species for different climate scenarios. He used this data to identify botanical diversity patterns, the first in Africa to be based on distribution models of thousands of plant species.

The result is worrying. Climate change

will drastically affect the biodiversity of Gabon – and the rest of Africa. The prognosis for 2085 is that the mix of plant species found in some places in Gabon will have changed by 75 percent as a result of some plants disappearing and others appearing. What is more, the total species richness will have gone down by 5 to 10 percent. 'But that is a cautious estimate. I expect the percentage of species that die out to be much bigger. But I cannot calculate that for want of sufficient data.'

The main reason climate change will have such a big impact is that Gabon will become wetter, says Van Proosdij. 'In 2085, large areas of Gabon will be 25 percent wetter. Rainfall will increase in the dry season in particular. So the country will become greener and dry savannahs will become forested. In a wetter climate, species which have adapted to those dry conditions get into trouble. And the already rare species will suffer the most.' **® RK**

SACRED SITES ARE GOOD FOR NATURE

Places of spiritual significance in natural landscapes should be respected. Doing so prevents conflicts and benefits biodiversity, writes doctoral researcher Bas Verschuuren in his thesis.

The 1992 Convention on Biological Diversity states that indigenous peoples should be involved in plans to designate their homelands as nature conservation areas. But the recognition of sacred sites is not included in the treaty. Religious sites therefore often stay off the radar and are disregarded in decision-making about nature conservation or raw material extraction. Wrongly so, says Verschuuren.

‘Spiritual sites are part of the ethnic identity of indigenous populations. Their significance should be taken into consideration in decision-making.’ This means that different worldviews should be given equal status. Verschuuren calls this ‘ontological equality’.

By involving the local people in plans for nature conservation right from the start, you create a support base, says Verschuuren, and can avoid conflicts. Moreover, sacred sites are often places of great biodiversity, because people have taken good care of them for generations. So such places are often worth protecting for that reason alone. There are exceptions. ‘In re-

gions which get masses of visitors, such as places of pilgrimage in the Himalaya, nature suffers.’

The importance of creating common ground between government and indigenous peoples is illustrated by the National Council for Spiritual Leaders in Guatemala, says Verschuuren. This organization champions the preservation and restoration of sacred Maya sites such as trees, mountains, caves and lakes. They have been lobbying parliament for their proposed bill for more than 10 years, so far in vain. The proposal gets rejected repeatedly because it includes letting indigenous peoples make decisions about their sacred sites and obliging mining interests to take them into account. Since some ruling parties in Guatemala support the mining companies, the Council does not stand a chance.

There are success stories too, though. Aboriginals in Australia were not consulted on plans for their home areas before the early 1970s. Now they are in charge. They work with government, researchers and companies with an interest in their area, and entirely from their own worldview. ‘I think that’s one of the nicest examples of combining an indigenous perspective with modern thinking about nature.’ **RDdV**



PHOTO: BAS VERSCHUUREN

Illegal mining activities have damaged the habitat of the Tancharra in Ghana.

VISION

NWO Nederlandse Organisatie voor Wetenschappelijk Onderzoek

‘We are training too many researchers’

The Dutch science funding body NWO wants universities to submit only a selection of their research proposals, so their chances of success go up from around 15 percent to at least 25 percent. The NWO hopes this will be a way of containing the run on research funding. Thom Kuyper, personal professor of Soil Quality, thinks more drastic measures are required.

The NWO has said that, for personal research grants, from now on universities must guarantee employment. And the professor must submit a statement that the proposal matches his academic field. Will that help reduce the number of proposals?

‘No. Professors will always support a good research proposal and can always come up with a great story as to why it fits their line of research. So it will have no effect. And then the Executive Board has to make a selection of the proposals. Currently, candidates feel disappointed when the NWO rejects excellent proposals. Soon they will be cross with their own university when it stops them from competing. What is more, you’ll have to set up yet another committee for that.’

More bureaucracy.

‘Exactly, and without removing the cause of the problem. The pressure to submit research proposals for NWO grants will remain the same, because we have trained 10 people for every vacancy at our university. And how did that happen? We are expected to win a lot of grants. Thanks to perverse incentives, we have become addicted to the PhD system.’

What is the solution?

‘I think the funding should be done differently: more long-term government funding, and less money per PhD position. Then the permanent staff could start doing research themselves again, instead of having research done by PhD candidates. And the NWO will automatically have fewer research proposals coming in.’

But how do you select the PhD researchers whose proposals are submitted?

‘Perhaps you could assess them during the process of their PhD work, and at the end say to some of them: you are not so suited to research, and your chances of getting tenure at the university are very slight, so we are not supporting your proposal. That’s tough, but unavoidable.’ **RDAS**

SUSTAINABLE FOOD SALES GO UP MOST IN SUPERMARKETS

Last year, consumers in the Netherlands spent 26 percent more on sustainable food than in 2015. The food in question was mainly organic products and those with a 'Better Life' label.

Sales went up most in supermarkets, says Wageningen Economic Research in the Sustainable Food Monitor.

Residents of the Netherlands spent 3.7 billion euros on sustainably produced food last year, the institute calculated on the basis of figures from the Statistics Netherlands, WUR, Foodstep and Bionext. This doubled sales of food with the Better Life label. This 'halfway house' between conventional and organic products was the most popular label, with sales of about 1.1 billion euros. This brings Better Life close to the turnover figures in the organic sector.

Specialist retailers of sustainable food have not profited from the extra demand for sustainable food, notes Wageningen Economic Research. It was in the supermarkets that 'sustainable' sales rose the most. **AS**

VEGAN BURGERS ARE THE MOST ECO-FRIENDLY

Meat substitutes that are free from dairy or other animal ingredients have the lowest environmental impact, shows a study by Klara van Mierlo and colleagues at Operational Research and Logistics.

The researchers used a computer model to test four different kinds of product: vegetarian meat substitutes, vegan meat substitutes, insect-based meat substitutes, and meat substitutes with no added supplements such as vitamin B12 and zinc. 'We fed in the data on a range of ingredients such as soya, lupine, mealworms, eggs, vitamins and water. The computer then calculated the best composition for a meat substitute with the same nutritional value as meat. Vegan meat substitutes had the lowest environmental impact. Only in terms of water consumption did other products – the insect-based meat substitutes – use less resources.

The calculations of the environmental impact took into account the entire production process: from sowing right up to the moment that the meat substitutes were ready for packaging and transportation to the shop. The researchers included the volume of greenhouse gases emitted to produce one kilo of each prod-



PHOTO: SHUTTERSTOCK

uct, and they also looked at how much land, water and fossil fuels are used for the production process. Acidification and manure pollution were not included in the model. Van Mierlo: 'They are certainly not unimportant but because their effect is largely local and we wanted to make a global model, we did not include them.'

In the model the researchers opted for meat substitutes with comparable nutritional value to that of meat. Van Mierlo: 'Then you don't have to adapt your diet to make up for nutrients you would otherwise have got from meat.' Van Mierlo based the calculations on the ingredients that are used in production in the Netherlands, but the model can also be used in other countries. **TL**

WEED TURNS RICE PLANT INTO SLAVE

Rhaphicarpa fistulosa looks harmless but it behaves like a real slave driver when it gets among rice plants. PhD candidate Stella Kabiri is investigating the growth strategy of this parasitic weed, which is a threat to rice production in Africa.

Kabiri grew rice plants in pots, added different amounts of the weed's seeds and carried out regular measurements to find out how *R. fistulosa* inhibits the growth and production of rice plants. She concludes that the weed affects the rice plant's photosynthesis and reduces growth by between 22 and 71 percent. Moreover, the number of rice grains declines by as much as 78 to 100 percent. 'The parasitism eventually causes growth to come to a complete standstill in the rice plant, with the plant only making nutrients for the parasite,' writes Kabiri this month in the *Annals of Applied Ecology*. 'After the parasite has infected the rice plant, it behaves like a real slave driver that completely dominates the host plant.'



PHOTO: DINESH VALKE - WIKIMEDIA

R. fistulosa, which the Africans call the rice vampire weed, is found in nature in low-lying wet areas of Africa, where rice production has increased in recent years. Researchers at the Centre for Crop Systems Analysis in Wageningen and the Africa Rice Center in Côte d'Ivoire, who supervised Kabiri, therefore expect this weed to be an increasing problem.

Kabiri's research offers possibilities for combating it. To start with, African rice farmers need to create a 'false seedbed' prior to planting. Some of the weed seeds will germinate then, letting the farmer remove them. Improving soil fertility will also help as the parasite thrives mainly in poor soils. **AS**

Not everything that the *Resource* editors produce ends up in the magazine. Get a taste here of the videos, photo series and stories you can find online.

MR EARTH DRILL



PHOTO: SVEN MENSCHTEL

The annual Earth Drilling competition has come to an end. This year was Gert 'Mr Earth Drill' Peek's last as chief referee. The Soil Science lecturer will be retiring next year. To honour him, study association Pyrus has named both a drilling field and the originality prize after him. The team wearing the best outfit will now be awarded the Peek Trophy. See the videos and photo serie at resource-online.nl.

HURRICANE IRMA



In *Resource 4*, Bachelor's student and storm chaser Melody Sturm talked about her fascination for hurricanes. She managed to stand in the eye of hurricane Irma, which she thought was an amazing experience. Reader Jeff Harvey was unhappy with the story. In a comment on the website, he

writes: 'I found the article to be somewhat tactless, given that Irma is perhaps the most destructive Atlantic hurricane in history, virtually destroying the island economies of Sint Maarten, the US and British Virgin Islands, the Turks and Caicos Islands, and much of northern Cuba [...]. I can understand Melody Sturm's passion for extreme meteorological events, but at the same time showing pictures of her smiling on her selfies and saying how exhilarating the experience was to be in the eye of a Category Three hurricane that had wrought so much damage and horror in its wake was going too far.'

TOURING PHENOMEA



Wageningen Food & Biobased Research has a new research facility – Phenomea. Scientists can study the quality control of fresh products here such as vegetables, fruit and flowers. Visitors could have a look round the place last week when it was officially opened. If you too want to know what it looks like inside, view the video online.

Read the full comment online.

MEANWHILE ONLINE

PICTURES OF POPRONDE



PHOTO: SVEN MENSCHTEL

Pretty much every Wageningen pub had a band or musician on stage in the annual Popronde music festival, from sentimental singer-songwriters to

psychedelic rockers and edgy hip-hoppers. It all took place on Thursday 28 September. Photographer Sven Menschel produced a great photo series, which you can see at resource-online.nl.

Watch and read it all on resource-online.nl

PROPOSITION

'Something typically Dutch is a nice icebreaker'

Doctoral research is hard work. No harm in lightening things up now and then, thought Justine van Eenennaam. So she made a habit of taking 'stroopwafels' with her to the meetings with her colleagues and supervisors. 'It helps create a relaxed atmosphere.'

'Our project group included some non-Dutch people and passing around something very Dutch like stroopwafels was a good icebreaker. The foreigners saw all the Dutch putting their stroopwafel on top of their cup of coffee or tea, and that always got the conversation going.

Secretly it's a psychological trick of course. If you bring a tasty snack to a meeting, people like you better.



Justine van Eenennaam graduated with a PhD on 10 October for a study of the effects of oil spills on the ocean floor.

It makes for a relaxed atmosphere before you plunge into the topic of the day. Not that our meetings were all that stressful, mind you. But especially if you were feeling you hadn't produced much in the way of results for a while, the stroopwafels relieved the pressure.

I am not sure how scientifically valid the stroopwafel proposition is. I haven't received any criticism of it, anyway. At first my co-supervisor was a bit doubtful about my last proposition: "Scientific articles are to a PhD student what horcruxes were to Voldemort: pieces of your soul, granting eternal life in bibliographic databases, unless reviewer #2 destroys them." He had never heard of Voldemort. Once I told him a bit about the Harry Potter books, he took the point after all.' **LdK**



Animal breeding professor sees a future for higher quality milk

The specialized

Dairy farmers can use modern genetics to select cows that produce a lot of healthy fats or minerals. This would let them market 'baby milk' or 'sports milk' from the farm, thinks animal breeding professor Henk Bovenhuis. Not everyone in the sector sees this as a promising idea.

text Albert Sikkema illustration Geert-Jan Bruins

At prices of 40 cents per litre and production levels of up to 10,000 litres per cow per year, milk is a cheap bulk product. Henk Bovenhuis, who gave his inaugural lecture on 14 September as a professor holding a personal chair in Animal Breeding and Genetics in Wageningen, wants to add value to this product. He points to Dutch tomatoes, which the Germans denounced as *Wasserbomben* in the 1990s. That led to the rise of specialist tomato varieties, which are now sold at a premium. Bovenhuis thinks this should be possible for milk too because he sees a lot of variation between cows in the composition of the milk. According to the professor, you could exploit that variation by selling milk with an unusual composition separately — for a higher price.

CHEESE COWS

This idea is not new. In 1992, Bovenhuis received a doctorate for research on milk proteins. He discovered for example that cows that made less of the protein beta-lactoglobulin produced three percent more cheese per litre of milk. At the time, Bovenhuis and his professor Pim Brascamp launched the 'cheese cow'. 'We thought it could be an interesting option to keep the milk from these cows separate for making cheese.'

But nothing happened in practice. Bovenhuis does not know why exactly, but he suspects that the benefit from the separate milk flows — three percent more cheese — did not outweigh the higher transport costs. Dairy companies work with a single flow of milk from all farms, which they then separate out in the factory to obtain the raw materials for liquid milk, custard, butter, milk powder, cheese, soft drinks and yoghurt.

But Bovenhuis is now tracking down a new healthy ingredient in milk: zinc, a mineral that we need for producing



COW

DAIRY INNOVATION SO FAR

So far, most innovation in the dairy sector has involved production methods and farming systems. As a result we already have organic milk, pasture milk and (in Germany) GMO-free milk. An experiment is currently underway with 'meadow-bird' milk in which the mark-up is spent on the protection of peewits and godwits. And there will soon be 'Better Life' stars for milk if the animal rights campaign group Wakker Dier has anything to do with it.

key enzymes in our bodies. In many countries, young children do not get enough zinc through their diet, says Bovenhuis. Research into 1800 dairy cows has shown that the percentage of zinc in cows' milk can vary by a factor of two and that 40 percent of that variation is genetically determined. Three genes in particular are responsible for this. So dairy farmers can now use a DNA test to select cows that produce milk particularly rich in zinc. Bovenhuis thinks you could have that milk collected separately by the dairy company and market it after processing as 'healthy baby milk powder from the farm'.

Using the same approach, you could have farmers producing cows' milk with more magnesium and selling it as sports milk, because people who play sports need more magnesium. Or they could produce milk with more calcium for older people, or milk with a certain fat composition for better ice cream. Bovenhuis: 'We have already been able to identify a great deal of genetic variation in the cow genome, which dairy farmers can use to select cows.' In combination with tailored animal feed, this can produce different kinds of higher quality milk.

PRIMARY MILK

When asked why this would succeed whereas the special cheese milk did not take off, the professor answers that the market conditions have changed since then. 'There is a market for baby food and sports food, and the dairy sector can key into this.' What is more, now that supermarkets are in the driving seat there are more oppor-

tunities to market exclusive dairy products. He points to the launch of A2 milk, the 'healthy primary milk' from cows that only produce the milk protein A2. The company in question claims that this milk is healthier than milk that also contains A1, as that protein is alleged to increase the risk of diabetes. Bovenhuis says this health claim has no scientific basis. 'But aside from that, my point is that the company has organized a distribution channel with farmers who select A2 cows and with supermarkets that sell this specialist milk. So there appears to be a market for this now.'


FLAW IN THE ARGUMENT

Innovation broker Carel de Vries has his doubts. As the programme director of Courage, an innovation organization for the dairy sector, he was involved in 2008 in the introduction of a special farmers' milk by FrieslandCampina with a lot more omega-3 unsaturated fatty acids. The cows produced more of these healthy fatty acids thanks to special animal feed. 'But that milk was not a success in the market,' says De Vries. 'It is not easy to make money from a separate milk flow. It has to offer significant benefits that you can't easily achieve in any other way.'

De Vries thinks that Bovenhuis's milk with additional zinc is not strong enough. 'You need to drink an awful lot of that milk before you absorb more zinc, and you could just take a zinc pill.' Farmers' milk with additional calcium or magnesium won't be a hit either, thinks the innovation broker. He thinks there is a flaw in Boven-

huis's argument comparing milk to the 'water-bomb' tomatoes of the past. 'The problem with the tomatoes was the flavour. New varieties of tomato were then developed with more flavour. But milk with more zinc or healthy fatty acids tastes the same as ordinary milk, so it isn't distinctive. Ordinary milk already contains lots of proteins and minerals, so it is already healthy.'

HIGH-OCTANE FUEL IN A LADA

Professor Bovenhuis is unconvinced by these objections. 'There are already dairy products with special ingredients on the market, such as Yakult. And A2 milk has a market share of around 10 percent in Australia, so it is possible.' In his opinion, the failure of launches of iodine-rich and omega-3 milk in recent years was partly because no use was made of the genetic variation. 'In those ventures, the dairy sector focused exclusively on changes to animal feed without involving genetics. That's like putting high-octane fuel in a Lada. It is precisely the combination of genetics and feed that offers big opportunities.' 





DRIFTY THE DRIFTFISH

On 8 August Dutch Kotter fisher Hans Tap caught a mystery fish just south of the Maasvlakte, part of the Europoort harbour. He brought it to Wageningen Marine Research in IJmuiden, where, after some smart detective work, biologist Bram Couperus identified it as a specimen of *Ariomma indicum*, or the Indian driftfish. The fish has now been preserved and will be kept at Naturalis Biodiversity Centre in Leiden. Couperus was invited to come up with a Dutch name. 'In Australia they call it the Eyebrow fish, and there is indeed a bit of a ridge above its eyes. But in the end it's the British name that is most widely accepted so I went for a translation of that. And I call this specimen Drifty.'

The fish detective

With some fanatical detective work, biologist Bram Couperus recently solved the mystery of the unidentified tropical fish which had turned up in a Dutch shrimp net. It was not the first time he had identified an exotic species. 'I can't stand not knowing what it is.'

text Tessa Louwerens photo Bram Belloni

Bram Couperus, a researcher at Wageningen Marine Research in IJmuiden, has had a fascination for plants and animals since childhood. He feels a strong need to name everything. 'If I am walking through the forests and I hear birds sing, I want to be able to name them. It gives me something to hold onto: each habitat has its own species that belong there. For me, this diversity of species is the basis of ecology.'

Couperus regularly goes out to sea for his work, to study fish stocks of species such as herring and blue whiting. 'The sea is a black box; to me that is what is so exciting about it. On the ultrasound scans you see a patch and that is a school of fish. But you never know beforehand exactly what you will catch. One time the school is full of blue whiting, and the next time there are 50 different species in it.' Such cases bring out Couperus's need for order: 'I can't stand it if I come across something which I can't identify.'

NONDESCRIPT FISH

Last month, when Couperus had an unfamiliar and nameless fish in front of him, he was itching to identify it. 'It doesn't matter how busy I am, if people find something unusual, I am very happy to take the time to find out what it is.' And this included Dutch Kotter fisher Hans Tap, who found a 15 centimetre-long fish in his shrimp net (see inset). 'Hans comes by occasionally if he finds something unusual, because his Kotter is moored very near our office. For instance, he brought in an unusual shrimp, *Palaemon serratus*. It is in the aquarium here at the reception desk now.'

Couperus couldn't place the fish at first. 'I've been doing this work for 25 years and I usually think, oh, that is from that family. But

this was such a nondescript little fish, with no particular characteristics. My first impression was that it looked like a cross between a horse mackerel and a sea bream, with a remarkably small mouth.'

NEEDLE IN A HAYSTACK

Couperus and a colleague of his delved into the field guides of the North Atlantic and the Mediterranean. In vain. 'Then we thought: maybe it comes from the western Atlantic. So we sent photos to our sister institute NOAA in Woods Hole in the United States.' Sadly, the pictures didn't ring any bells for their American colleagues either. 'Then we sent the photos to a colleague in Australia. But they weren't taken very seriously there.'

In his determination to find this fish's name, Couperus systematically combed through Fishbase, a database with all the fish species in the world. 'It really was like looking for a needle in a haystack, especially because that fish was not exactly eye-catching. But I was lucky because within half an hour I had found a picture of it.' And then at last the fish had a name: the Indian driftfish, known to scientists as *Ariomma indicum*, a perch-like fish only found in the tropical or sub-tropical waters of the Indian Ocean.


BALLAST WATER

How the fish ended up in the North Sea is a mystery. 'If it had anything to do with climate change, you would expect there to be more sightings, along the west coast of Africa for instance. But this is the first time it has been spotted in the Atlantic region.' In theory the fish could have been transported in the ballast water of a ship, as an egg or larva. 'But the fish was already 15 centimetres long, which meant it would have to have survived a winter in the cold North Sea. On the other

hand, I can hardly imagine that an adult fish could survive a voyage of several weeks in the ballast water tank of a ship.'

The find is very exceptional, says Couperus. 'We quite often see exotic species turning up in the North Sea, but we usually have an explanation for it. Several species come here from eastern Europe, for instance, through the Main-Danube canal.' So the biologist is eager to know whether there are any more fish of this species in the North Sea, and he has asked fishers to report them. 'Fishers are the likeliest to discover something special: they go into the same zones year in year out. But I think they often don't notice unusual catches, or they just think "funny fish" and throw it overboard.'

COMMERCIAL SPECIES

Identifying exotic species is not Couperus's daily work. 'The annual surveys by Wageningen Marine Research are for stock estimates for commercial fish species. Species for which there is no market do not get priority. I do my best to pay some attention to them in between all the other work. And with some success, because at present we are collaborating with the Pelagic Freezer-trawler Association (PFA) on a species identification guide.' Perhaps Drifty, as Couperus calls his find, could be added to the guide. 

Look at the photo series of exotics in the North Sea on resource-online.nl





HORA EST

A last look in the mirror, touch up the lipstick and off she goes. Leading the professors into the great hall at the Aula in dignified procession. A beadle's job means performing. Acting, if you like. After doing it for three years, it has become second


nature for Lily Kroon. Together with two other beades, she makes sure PhD graduations and other ceremonies run smoothly. She must be one of the most frequently photographed people in Wageningen. 'Yes, now you come to mention it, it is quite

funny.' Especially for someone who doesn't like being the centre of attention. But that applies to the civilian Lily Kroon. It's another matter for a beadle. 'Suddenly people see you quite differently. There is something festive about being a bead-



le.’ Kroon has experience in the hospitality industry: she used to run a hotel in Amsterdam and organize conferences. And now she is beadle and host at the Aula. At the moment she does this part-time when called but from next September she

will have a permanent post. She loves the job. Welcoming guests, guiding PhD candidates, and of course all the etiquette. Leading the troops as master of ceremonies. And then, once the PhD candidate has been put through their paces for

precisely 45 minutes by the doctoral committee, speaking the words: *Hora est*. The time has come. And it always goes like clockwork. ‘You just have to use a digital clock and be alert. The times are in my system.’  RK, photo Margriet van Vianen



Roos van Dortmund with her parents in the Belmonte Arboretum.

In their parents' footsteps

Choosing a degree programme, leaving home. For a lot of young people that is a good moment to go their own way and cut loose from their parents. But some opt for the university their parents went to. Four second-generation Wageningen students talk about why.

text Linda van der Nat and Madhura Rao *photos* Sven Menschel

Roos van Dortmund (Biology)

Mother: Dymph Aselbergs (Horticulture 1985-1991), now working for the Dutch Medicines Evaluation Board

Father: Ton van Dortmund (Landscape Architecture), now working as a developer of wind farms

'My parents never pushed me to come to this university. At first all I wanted was to get away from Wageningen, where I grew up. I wanted to go to the big city. But on a visit to Wageningen University I liked the atmosphere so much I decided to stay here after all. My brother did leave; he is studying Technical Planning at Groningen. That is a bit like Landscape Architecture so in a way, he is following my father and I my mother.

I made a point of moving into a place of my own. I always heard positive stories about that from my parents. My father lived in the block of flats at the Rijnsteeg, which has since been demolished, and my mother lived in the Dijkgraaf flats. They had very nice corridors; they cooked together. I wanted to experience that too. I am now living in the same building as my mother back then. She likes the fact that I'm studying in Wageningen; I live ten minutes away and I'm often home at weekends.

My parents live close to the Dreijen, where I often played as a child. I have had a class there just once, and I texted my parents to say how special I thought that was. They think it's a pity the Dreijen is hardly used any-



Baibing Yan with his parents in front of the 'cooking pots' outside Atlas.

more. They think the campus is beautiful, but the Dreijen is their campus.

I don't hear a lot of wild stories about their student years. My parents met at Unitas, of which they were both members. My father was DJ there, they demonstrated against nuclear energy and they dressed 'alternatively'. That's about it, I think. I am not a Unitas member; my interests are a bit different. SSR-W suits me better.

The photo of us was taken at the viewing point in the Belmonte Arboretum. That place stands for our connection with and interest in the landscape and the natural world. It is a place we often go to if we want a little walk. My parents had their wedding photos taken here too.'

Baibing Yan (Management and Economics)

Father: Zifu Yan (Plant Genetics and Breeding 1999-2000), now a self-employed businessman

Mother: Yuling Bai (Biotechnology and Plant Genetics and Breeding 1998-2000), now working as associate professor at Plant Breeding

'My parents met as students at the Henan Agricultural University in China, where they both got their Bachelor's and Master's degrees. After graduating they taught at the university and they had me. Then they both left for Wageningen for a second Master's and a PhD, first my mother in 1997 and a year later my father. I came to Wageningen a few months later, when I was six.

'Actually I wanted to get as far away from Wageningen as possible'

When I was very small I sometimes went with them to the university, usually at weekends, because they often had to work overtime. Then I played on a computer or had a look around the lab. Biology and plants don't interest me at all. I like numbers and money matters. So I went to Rotterdam to do Business Economics. I wanted to get as far away from Wageningen as I could. I was really sick of the town; there isn't much for young people to do here. I loved it in Rotterdam. I enjoyed student life so much that I didn't get enough credits and I failed the year. Friends told me Business and Consumer Science in Wageningen was nice and not too hard. Of course my parents thought Wageningen was a good idea. So I thought, let me give it a try.

Because I'm doing a completely different degree than my parents did, I don't feel as though I am following in their footsteps now I'm at Wageningen University. We do talk about the university a lot at home because my mother teaches here. When I come to think about it, it is quite unusual: my parents both come from the Chinese



Marte Stoorvogel's parents met at the Asserpark flats.

countryside, where there is not much opportunity to develop yourself. They fought hard to get where they are now, and that is something to be very proud of. They gave me the opportunity to study here, and I am very grateful to them for that.

The big cooking pots that are now in front of Atlas originally stood outside the main university building at Duivendaal. My parents and I used to see those pots a lot; they are a familiar university artwork. That is why we chose to take our photo there.'

‘I helped my father with fieldwork in Uganda recently’

Marte Stoorvogel (Earth and Environment)

Mother: Marjon Oostrom (Food Technology 1986-1992), now working for the Dutch Association of Land Agents

Father: Jetse Stoorvogel (Soil Science 1983-1989), now working at WUR as associate professor of Soil-Land Use Interactions

‘I don’t feel a familial connection with the university because my parents studied here too. I never think about it, actually. Our experiences are too different for that. They were taught at Duivendaal and the Dreijen, and they lived at Asserpark. I have classes on campus and I live at the Haarweg. My mother was a member of KSV for a while and my father was a competition rower for Argo. I don’t belong to a student society. I swim competitively with a town swimming club and go to the pool five or six times a week.

My decision to study in Wageningen had nothing to do with my parents. I went to open days in Amsterdam, Utrecht and Nijmegen as well but Wageningen appealed to me the most. And I didn’t feel like I had to get away from the town where I grew up. My parents didn’t interfere with my decision. In fact, at the Medical Sciences open day in Amsterdam, my father even said he thought it sounded a very nice degree programme. As for Wageningen, he did comment that the programme included a lot of field trips abroad, and how much he had enjoyed that himself. After graduating, he worked in Côte d’Ivoire and



Zying Huang's parents live in China. They keep in touch through Skype.

Costa Rica, where I was born. I recently went to Uganda with him and helped him with fieldwork. It was very nice, and I would like to work abroad myself.

In terms of subject I have followed in my father's footsteps, but I don't know where that fascination comes from. It is not as if we always used to talk about soils and geology. Now we can have nice discussions about it. If we see a nice stone when we are out walking, for instance, we say to each other, 'oh look, granite.' And you can see my mum and my sister exchanging looks. But it's not too bad; we don't talk about soils for hours. I think it could have been a lot worse. Our photo was taken at Asserpark, where my parents met.'

Zying Huang (Food Technology)

Father: Ruiqing Huang (Management of Agricultural Knowledge, 1988-1990)

Mother: Xueping Qu (Management of Agricultural Knowledge, 1995-1997)


Together they run Beijing Rue Xue Global Co, a Chinese agrotechnology company which works a lot with the Netherlands

'The fact that my parents studied here too makes it a unique experience for me to be here. But it was not why I chose Wageningen. I chose to study at WUR for its courses and its excellence in the field of life sciences. I study food technology but my specialization is manage-

ment. The fact that you can combine the two made it very appealing to me.

My parents were married before they came to Wageningen. I was born here, in 1993, and we went back to China in 1999, when I was six. I don't have many memories of my childhood here. I know I went to the kindergarten in the Tarthorst.

From what my parents tell me, Wageningen town has changed a bit since their time, with new infrastructure and the campus. Back then there were only 20 Chinese students studying here. Now there are over a thousand of us! And the shops open on Sundays now too.

My parents visited me a while back and it was a very emotional experience, especially for my mum. I'm really glad to have this very special experience of studying at the same university as my parents. I am even living in the same block of flats: Bornsesteeg.' 

CAN THE BUREAUCRACY BE TAMED?

Reducing the amount of red tape is a major topic in WUR. And yet staff feel it is only increasing. Take the extra step recently introduced in MyProjects, with researchers having to tick the box if they are using personal data. Can we tame the bureaucracy beast?

text Carina Nieuwenweg illustration Henk van Ruitenbeek



Anton van Bunschoten



Education and Research assistant at BioNanoTechnolog

'As an assistant the main issue for me is time tracking. Some financers require extensive records of the time and money spent, but not all projects make such strict demands. So I wonder whether MyProjects is based on the highest level of record-keeping or whether WUR is legally required to keep such detailed records. **Personally at any rate, I hardly ever deal with a fund that wants to see a record of every hour I spend on the work.** So I wonder who I'm doing the time tracking for. What I see as worrying is that you need a whole level of management to manage a scientific project these days. I think it's odd that the reporting has become so complex and demanding that chair groups can't handle it themselves and have to spend some of their research funding on it.'

Marie-Luise Puhlmann



Research assistant at Human Nutrition

'At the Human Nutrition department there are strict rules about project registration. We follow the same procedure as in pharmaceutical research. We have to write a protocol according to a load of rules, which then goes before WUR's Medical Ethical Commit-

tee. Such a protocol often goes before the committee several times; it can easily take six months before you can get started. Also, during a research day we have to record and register everything; every deviation from the norm has to be reported. **So there is a lot of bureaucracy. But nutrition research is sensitive; we are working with people and the welfare of participants is our highest priority.** It is all still done on paper at the moment. Working digitally should make it easier.'

Sjon Hendriks



IT technician at Microbiology

'I see bureaucracy as a necessity for getting and keeping an overview of certain things. But we do have to watch out that we don't take it to extremes. A good example of this is the deadline for time tracking, which is much too soon, so what we record is just made up. This puts additional pressure on the administration. **I notice that more and more systems are being installed because of the increasing student numbers.** As an example, we've set up a system to keep track of which students have already received lab instruction, and whether they understood it all.'



Gert Jan Hofstede



Associate professor of Applied Information Technology

'We can't do without bureaucracy but I am spending more and more expensive time on it, while I have less and less time to spare. MyProjects is not at all user-friendly, and then there are various other difficult and ever-changing systems, for registering holidays or travel expenses, for instance. **Even more irritating is the fact that time tracking is so pointless. You don't fill in what you actually do, but what you should be doing according to your project or portfolio. So the purpose of it becomes to "feed the beast".** That frustrates me, especially because we are also assessed on the basis of our publications and student evaluations.'

Paula Harkes



PhD researcher at Nematology

'My impression is that the bureaucracy isn't too bad at the university. **I have a lot of freedom as a PhD student. I don't have to work**

set hours or keep records of exactly how I divide my time. These are things I probably would have to do in most companies. And to me that is one of the big advantages of doing a PhD. I am free to decide to start at around 10 o'clock and go on until 7 in the evening. But you do need a certain level of bureaucracy; we can't do everything on the basis of trust.'

Bastiaan Meerburg



Head of the department of Livestock and Environment

'WUR simply does have to fulfil certain criteria with regard to privacy law. If that can be done relatively easily by ticking a box in MyProjects, I think that's great. What is more important to me is that we cut down on the bureaucracy in the bidding process for projects. If we want to be involved in the business world we've got to put the client's priorities first. **Sometimes a client wants a proposal within a week. That causes problems here because so many boxes have to be ticked.** Everyone has to tick a box: the project leader, the controller, the head of department, the directors and a legal advisor. So if one person is on holiday you lose a couple of weeks. But it is a ques-

tion of mentality above all: there is a strong inclination towards risk avoidance in this organization. We've got a way to go in that respect.'

Jan Kammenga



Personal professor of Functional Genetics

'As I see it, bureaucracy is wanting to do everything according to lists. And there is too much of that. Lists of criteria for tenure track, lists of the qualities of the best universities or publications. **We live in a list-loving country, where people think everything is fine as long as you can tick all the boxes on a list.** The underlying assumption is that lists give us control over quality. Whereas in fact, because of the lists you can end up neglecting the substance of the work. We've gone over the top with this in recent years. Alongside their actual work, teachers spend more and more time on course evaluations which they can be judged on. Evaluations should be made to measure. Someone who doesn't fit into the tightly defined framework of a list can still be incredibly valuable for the organization.' ®

Bonobo watching

Through two winters, BSc student Manon Römken observed the behaviour of the bonobos in Apenheul Primate Park in Apeldoorn. What started as a voluntary internship grew into her Bachelor's thesis. And her interest hasn't waned. 'The bonobo's laugh is the sweetest thing in the world.'

text Veerle de Goederen *photo* Fabienne Voncken

The alarm went off at six o'clock in the morning every Saturday and Sunday. A two-hour bus ride preceded a long observation session, with pen and paper on her lap and a stopwatch in her hand. This is how Manon Römken (26) spent her weekends over two winters. On a voluntary internship at Apenheul Primate Park in Apeldoorn, the Bachelor's student of biology studied stereotypical behaviour in the 12-strong colony of bonobos at the zoo. 'At four o'clock in the afternoon, the zookeepers came over to tell me it really was time to go home now.'

KINKY POSITIONS

Bonobos are famous for their rich sex lives. They use sex not just to reproduce but also to reinforce social relationships or to defuse conflicts. The animals in Apenheul certainly live up to their reputation, says Römken. 'I couldn't believe my eyes the first week. Males with males. Males with females. Females with females. And in different ways all the time, too. We humans could pick up some ideas from them. And the young just go and sit in the middle of it all, to learn how it's done.'

Not all visitors to the zoo appreciate being confronted with the antics of their distance relatives. 'I once heard a little boy asking his mum what those monkeys were doing. The mother stuck to her story that she had no idea, she had never done anything like that. For goodness' sake.'

WHO IS WATCHING WHO?

The appeal of bonobos, according to Römken, is that they are so similar to humans. Along with chimpanzees, these are our closest relatives among the apes. 'If you look them in the eyes you see yourself. They each have unique personalities. When toddlers play, or when a mother kisses her baby, I saw them laugh. That's really the most beautiful thing in the world. If there are a lot of visitors, some apes stare back at the people. Sometimes I wondered: who is watching who here?'

After two months the apes started to recognize Römken. 'If I drummed on the floor – never knock on the window! – the toddlers came over to me and ran up and down in front of the window. Just like a game of catch.' The relationship she built up with the animals made staying objective quite a challenge. Her supervisor at Apenheul taught her to look with the eyes of her scientist. 'If I had the impression an ape was feeling sad, he kept on asking what observations I based that on. Now I realize how difficult it is to draw hard conclusions about animal welfare.'

STEREOTYPICAL BEHAVIOUR

During her observations, Römken looked at the frequency and duration of stereotypical behaviour. Behaviour is classed as stereotypical if it is repetitive and has no obvious function. It can arise due to tension or frustration when animals are not living in their natural habitats. Some bonobos in Apenheul, for instance, pluck each other's hairs out.


'Hair-plucking in monkeys is thought to be a sign of stress. Another possible explanation is that a single animal started doing it at some point and the rest of the colony copied it.'

Römken compared the behaviour of the animals in two sections of their winter enclosure. 'In the smaller section of the enclosure I thought I observed an increase in hair-plucking. And the animals started grooming each other more, which may be a strategy for releasing tension.' Unfortunately her observations were not significant enough to provide the basis for a firm conclusion. But she was allowed to submit her study as a special 'capita selecta' paper, and she used the results in her Bachelor's thesis. 'My supervisor at Apenheul had advised me to ask about that at WUR. It's really great that I got credits for my voluntary internship.'

The interns at Apenheul not only do research, they also keep an eye on the animals. 'Things can go wrong in the group at any time. Then it is important to bring in the zookeepers in good time. The bonobos' winter enclosure was divided into two sections, for instance, because there was too much tension between the alpha female and a male that didn't accept her authority. The disadvantage is that you sometimes split up the group.' Another issue is enrichment of the enclosure. 'On my advice, the zookeepers hung up an extra block for hiding food in. But too much enrichment can have the wrong effect, because it increases the competition for these objects. The keepers are constantly weighing up these kinds of considerations.'

THREATENED

Apenheul Primate Park is cautious about publicizing Römken's research on stereotypical behaviour. She understands that: 'Visitors form judgements after just one day. Personally I'm very cautious about forming an opinion. Zoos face a difficult dilemma. They participate in breeding programmes to save threatened species but the more animals they keep, the less space there tends to be per animal.' Römken would prefer to see the monkeys in their natural habitat, but she sees breeding programmes as a necessity. Bonobos are only found in the wild in the forests of the Congo. Poaching and loss of habitats are threatening the species with extinction.

Römken is determined not to let that happen. She hopes to continue to do behavioural research on apes in future. She is also a volunteer with the World-wide Fund for Nature. She tries to communicate her message positively. 'I think there is much to be gained by getting people interested. They are such hilarious animals. They are so like us. How could you fail to like them?' 

'I know how difficult it is to draw hard conclusions on animal welfare'



PHOTO: LINDA VAN DER NAT

Manon Römken in Apenheul Primate Park. In the large photo: male bonobo Bolombo.

Watch the video of
Manon Römken
on resource-online.nl



ICE HOCKEY (1)

Watching ice hockey can be just as hard work as playing intensively yourself, suggests a study by the University of Montreal. The scientists deduce this from recordings of the heartbeat of spectators watching ice hockey on TV or at the stadium. In front of the telly their heart rate was 75 percent higher, on average; at the stadium it was as much as 110 percent higher.

ICE HOCKEY (2)

Of course it is the exciting moments in the match that get the heart excited too. The highest heart rates are recorded during extra time, followed in order of magnitude by scoring opportunities for your own team, those for the other team, moments your team is short-handed, power play by your own team, and arguments on the pitch. Watching sport is a risk factor for people with a weak heart, say the researchers. And that's just ice hockey...

GOLD

Japanese scientists have modified chickens so drastically that they are laying eggs with healing powers. The substance in question is interferon beta, used in treating hepatitis and multiple sclerosis. There are now three chickens which lay one medicinal egg a day. The Japanese hope this will provide a way to produce medical drugs which are still extremely expensive at present. The real hens with the golden eggs.

BLUE

Every child who likes colouring knows: blue plus yellow makes green. So why are blue budgies blue? It's because of a single mutation in the gene with the code for the colours yellow and green, discovered scientists at Stanford. Budgies with the mutation are blue. So you could call them yellow budgies gone wrong. That puts a different complexion on the matter.



'I can't resist the Green Challenge'

Inspired by other student competitions such as the World Solar Challenge and iGem, WUR is going to launch its own competition in 2018. Registration for the Green Student Challenge opened last week. The jury will select 15 teams to develop a sustainable greenhouse. These three students are going to make a bid to be among the participating teams.

GIULIA HOMS, MSC STUDENT OF CLIMATE STUDIES

'This year I am on the board at student union SAW. But I want to develop in other areas too. In this project you work with students from all around the world, who come from other backgrounds and disciplines. There are 11 of us now, and the first time we met we found that everyone had arrived at a different solution. I think that's very interesting. The topic, developing a greenhouse that is as sustainable as possible, appeals to me a lot. I've been concerned about the environment since I was young: sorting waste, saving energy. This challenge gives me a chance to tackle it on a bigger scale. Anyway, you get results faster if you develop something tangible rather than trying to change things at policy level. Our team already has a lot of ideas, but no focus yet. We all meet next week and hopefully a plan will then emerge that gets selected. I am very keen to experience this challenge.'

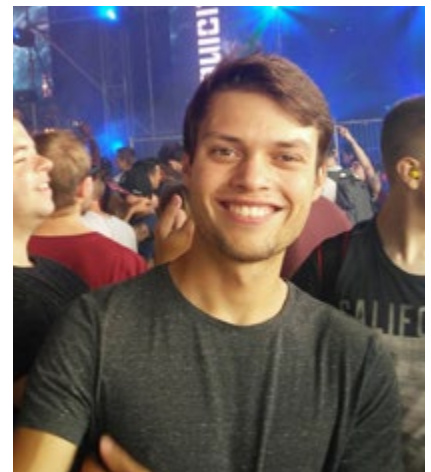
**HAO YAN, MSC STUDENT OF LANDSCAPE ARCHITECTURE**

'I don't generally enjoy setting myself a challenge, but I couldn't resist this one. I am a student of Landscape Architecture and I have entered a lot of competitions in the past. But they were mainly landscape design competitions in which you work with other designers with similar ideas and the same background. This challenge entails genuine interdisciplinary collaboration. We get the opportunity to work with experts in the fields of planning, agriculture, technology, policy and even economics. We can achieve something together that you could never manage on your own. I believe it could certainly influence the way I think as a designer, and I also expect to gain knowledge I can use in my designs.'

**WOUTER VAN DER DOES, BSC STUDENT OF BIOTECHNOLOGY**

'What appeals to me most is the combination of horticulture and the requirement to integrate it into an urban environment. And you are also expected to aim for sustainability as well as efficiency and economic viability. That makes the research into appropriate production methods even more interesting. Last year I decided to give up competition rowing, so I was looking for something to do in my newfound spare time. This struck me as a good way of expanding my horizons. As a biotechnologist I work mainly on really small organisms, so I like the idea of looking at the bigger picture for a change. We've got a very international and interdisciplinary team and I am the only Bachelor's student.'

📍 LvdN



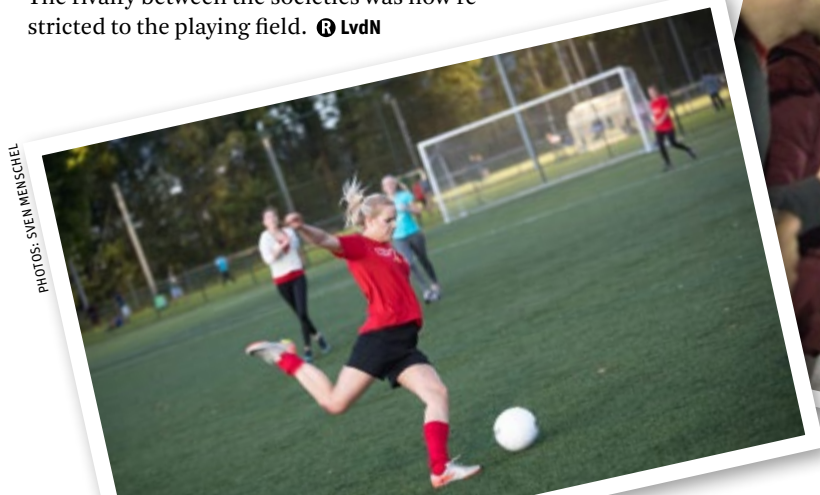
Interested too? You can find more information on the Green Student Challenge website.

Sport and beer

Four big Wageningen student societies were out on the playing fields of the Bongerd on Friday 6 October, playing football and hockey matches and drinking a lot of beer. This was the first time that W.S.V. Ceres, KSV Franciscus, SSR-W and student rowing club W.S.R. Argo have held a joint sports tournament, said Ceres president Oscar Versteeg. ‘The atmosphere between the societies has been very good of late, and there are no issues anymore, really.’ The rivalry between the societies was now restricted to the playing field.  LvdN



See the photo series on resource-online.nl



PHOTOS: SVEN MENSCHER

MEANWHILE IN... SPAIN/CATALONIA

‘Open negotiations are the only way to go’

The planned referendum on the independence of Catalonia on 1 October ended with the Spanish state police intervening. There followed a week of protests by both the supporters and the opponents of independence. Alejandro Thérèse Navarro and José Manuel Salvador, who are friends in Wageningen, are on different sides of the conflict. They share a desire for more dialogue, however.


‘The weeks before and since the referendum have been emotionally hard,’ says Alejandro Thérèse Navarro, from Catalonia. ‘On 11 September, Catalonia’s National Day, large-scale protests were held. From that day onward the threats from the national Spanish government increased, and tensions rose as the referendum approached. I was afraid violence would break out and on the day of the referendum I could not do anything but watch the news. I was terrified by the voice messages and movies from friends who were at the voting stations. Luckily the situation became more

stable again after a week of protests.’ José: ‘For Spanish citizens who are not from Catalonia, the situation has not been so



PHOTO: SHUTTERSTOCK.COM

dramatic, but since the referendum we have been talking about it at every opportunity. International students ask about it, and all Spanish students in Wageningen feel a strong need among to talk about it.’ Where the friends disagree is on the oppression by the national government of the region of Catalonia. Thérèse Navarro: ‘The recent violent interference shows that continuing relations as they have been is no option.’ Manuel Salvador: ‘I fear that the anger against the Spanish national government is turning into a general hatred in Catalonia towards the rest of Spain. Violent interventions by the current administration have occurred in other regions as well, so the Catalans should not take it too personally.’

At least the friends agree on the way forward. They are both fans of the recent #Hablamos? and #Parlem? movement. This means ‘shall we talk?’ ‘In the past few months there has been a lack of dialogue, but open negotiations at every level are the only way ahead. To get that started, we are now going to have a beer together.’  TF



Alejandro Thérèse Navarro (right) and José Manuel Salvador are Master’s students of biotechnology. They come, respectively, from Catalonia and Extremadura, another region in Spain.

YOU ON CAMPUS

Carolina Pandeirada (23) is sitting in the gentle autumn sun trying to pluck up courage. Today is the day she'll meet her PhD supervisor. Carolina, who is Portuguese, has just finished her MSc degree in food chemistry and has moved to Wageningen to study the object of her fascination: carbohydrates.


'Carbohydrates are truly very fascinating,' she exclaims with a twinkle in her eye. For her Master's thesis in Portugal, she worked with many different food components: fats, proteins and carbohydrates. 'Fats are a bit boring – they are all much the same. And proteins fall apart at the slightest provocation, like even a small change in acidity. I think carbohydrates are just right. They can undergo complex molecular changes, for example during food processing. I'm curious to investigate how these changes affect nutritional value.'

Despite arriving in Holland only yesterday, the campus already makes Carolina feel at home. 'It is so green here, and so clean. Almost like a fairy tale. When you walk around,

'The laboratory is my playground'

you just see that this place breathes science.' Carolina hopes life as a researcher will bring continuous renewal to her life. 'I am very young at heart. I love to experiment with molecules, to create new substances. The laboratory is my playground.'

Carolina shyly reveals the brand-new tattoo on her left arm: a globe in red and blue, a

lucky clover, and a bird that takes off towards the horizon. Her initials are inscribed next to the bird's flying path. 'This tattoo reflects who I am. Last year was difficult for me – my grandmother passed away and my sister has a long-term illness. But even though family means the world to me, life carries on, and I want to live it. This tattoo reminds me to follow my dreams. I am as free as a bird.' 

Read all the interviews on resource-online.nl



PHOTO: VEERLE DE GOEDREIN

PARTIES

In the party mood? Wageningen Party Promotion (WUP) tells you where to find one. See too www.wageningenup.nl.



SSR-W - OPEN PARTY: KISS AND TELL

Thursday 12 October from 22.00 to 05.00

Temperatures are dropping and the leaves are falling from the trees. Don't fancy having to get through the dark winter days alone? Come to this SSR-W party, then, and look for a nice single. You can spot them by their red wristbands.

FORUM - FORUM POP DIVE

Saturday 28 October from 20.15 to 23.45

A real pop concert in the Forum! The Wageningen student orchestra De Ontzetting, the Argo band and an orchestra from Bennekom will play 'pop music through the years'.

WAGENINGEN - INDRONK DOBBEL PALM

Wednesday 8 November from 22.00 to 02.00


Every year, Wageningen pubs celebrate the appearance of the new season's draft Dobbel Palm beer with a festive pub crawl. Tickets are on sale for about a week before the event, but you have to queue for them. You can get in without a ticket, though, and it only costs a few euros more. And you don't get a nice Santa hat. 



PHOTO: SVEN MENSCHEL

At the Popronde on 28 September, music-lovers had a choice of dozens of acts in Wageningen town centre.

Wageningen Master's students do internships and thesis research all around the world, getting to know their field and other cultures. Here they talk about their adventures.

Australians really are relaxed

'In my first few days in Australia I often asked myself what I was doing there. It was raining when I arrived, I didn't know anybody, I had terrible jetlag and no room. In the hostel I wondered what I had let myself in for. But after a few days I was living in a big international house, I had got to know some people and I had started on my internship.

I worked on a PhD study of sports and exercise programmes at secondary schools throughout the state of New South Wales. The programmes offered strength training, mainly making use of your own body weight. I researched the barriers and enablers for sports teachers who were implementing those programmes. To find out what they were, we interviewed the teachers.

OFFICE JOB

I emailed the research centre in advance to tell them what my interests were, and they soon had a suitable internship for me. Then all I had to do was arrange a visa and a flight – so the preparations were very easy. I worked at the office from nine to five, which took some getting used to. Sometimes I prepared interview questions or attended a meeting, but I also did a lot of auxiliary work. The most valuable thing about it for me was seeing for the first time how a research project works in reality. I found out how you plan and implement something like that, and I learned a lot from that.

NICE HOUSEMATES

I had never been outside Europe and I wanted to go to an English-speaking, developed country. The relaxed mentality in Australia attracted me a lot, and luckily there was plenty of that around. Actually, all your ideas about Australians are right. They say 'cheers', they barbecue and surf a lot, and they go to the beach. I was there from September to January, so it was the middle of summer in Australia. After my internship I spent a month travelling and in that period it was sometimes too hot to do anything in the daytime. But most of the time it was just lovely weather. I went out and about at weekends, and that made Australia the perfect place for me. And the fact that I met my boyfriend there – one of my housemates – increases the chances of me going back.'

EvK

THE WORKS



Who? Mirte Lindhout, MSc student of Health and Society
What? Internship at the University of Newcastle
Where? Newcastle, Australia

Read all the interviews on resource-online.nl





MCB-51403: Capita Selecta Commodity Futures & Options

Always wondered about what is happening at the trading floor of exchanges like the ones in Amsterdam, London and Chicago? Wondered about how (agribusiness) companies manage their risks using commodity futures and options? Wondered about how it would be if you were trading commodity futures in Amsterdam, Frankfurt and Paris?

The *Marketing & Consumer Behavior Group* organizes a unique course that will introduce students to commodity futures and options markets. Students will develop an understanding of the markets and how they work, gain knowledge about the theory behind futures and options markets, identify their economic functions, and develop an analytical capability to evaluate their economic usefulness. This course is taught by Professor Joost M.E. Pennings (*Marketing & Consumer Behavior Group*, Wageningen University). There are only 40 seats available. If you are interested in taking this course (3 Credits) please register with Ellen Vossen at MCB (room 5029, De Leeuwenborch, e-mail: Ellen.Vossen@wur.nl, tel. 0317-483385). You can also pick up the materials here. Lecturers are on Fridays in period 5.

Science Cafe Wageningen

www.sciencecafe.wageningen.nl

How Telescopes help us explore our Universe

Thursday, October 26th
19:45 - Live music
20:15 - Science
Café Loburg
FREE ENTRANCE

Matthew Kenworthy - Leiden Observatory
Joeri van Leeuwen - ASTRON

Music by: Troubagroove

Sponsored by:



RESOURCE

Partners:



Get it now!

NEW!

The official Wageningen Campus app

Use the app to find your way around campus, keep yourself up to date on campus news and activities organised on campus.



FRESH DAILY!

Visit resource-online.nl
for the latest news



announcements

Tickets available for B.V.W. Biologica 'Nature calls' Symposium

This symposium will consider various aspects relating to the topic of 'sound'. Dr Wouter Halfwerk (VU University Amsterdam) will talk about the impact of sound on animal behaviour, Dr Ronald Pennings (Radboud University) will explain the use of gene therapy in the treatment of deaf people and Dr Guillaume Dezechache (Université Pierre et Marie Curie) will talk about the development of alarm signals in wild chimpanzees. The symposium (incl. dinner) is on Wednesday 15 November, at 18.00 in the Junushoff Theatre. Info and tickets: symposium-biologica.nl.

Wanted: enthusiastic student to make films about aquaponics in Ethiopia

For WUR's aquaponics programme in Ethiopia, we are looking for a student who has some affinity with agriculture and filming. You will film a number of videos that explain aquaponics technology for people who are interested in implementing aquaponics. You will conduct interviews on site and visit various projects. Travel and project costs will be reimbursed. The visit is scheduled for coming November and/or December. If you are interested, send an email to bkappers@tgsbusiness.com.

TGSBUSINESS.COM

Scientific institute Bier is offering grant for research proposal

There are still a lot of myths about responsible drinking/beer consumption as part of a healthy life style, as well as some gaps in scientific knowledge. To encourage research in this field, Bier is again offering a grant of €5000. Students, PhD candidates and postdocs can submit a proposal (max. one A4). The study can be about the biomedical, psychosocial or nutritional aspects of responsible beer consumption. Non-alcoholic beer could also be a focal point for the study. The winner will then need to produce a detailed research setup, after which the study can begin. Deadline for

submitting research proposals: 27 November 2017.

KENNISINSTITUUTBIER.NL/GRANT

Academy Ecology Fund

Young researchers can apply for a grant to collect ecological field data in the Netherlands and abroad. Ecological research at a foreign institute is also eligible. Priority is given to fundamental scientific questions, but research that tries to find a fundamental solution for practical problems is also eligible. The deadline for submissions is 15 December 2017. More info: knaw.nl/nl/prijzen/subsidies.

Want to find out how to cope with the blues?

Did you know that the government has started a National Depression Campaign to end the taboo on sombre moods and depression? Depression symptoms are common, including among students. You can have a great student life but given all the changes (a new degree, town, friends), it would be no surprise if you felt ill at ease and anxious at times. You might wonder: am I up to it, do other people really like me, why do I feel so down when everyone around me seems to be so happy? You're not the only student to feel like this! If you get help and advice in time, then the risk of a genuine depression will be much smaller. *Grip Op Je Dip* ('coping with the blues') and *Kopstoring* ('head dysfunction') were developed to make it easier to get help and advice. Go to GripOpJedip.nl and Kopstoring.nl for free, anonymous help, by email or via online group courses, with specialized mental health professionals. New courses start every month.

GRIPOPJEDIP.NL / KOPSTORING.NL

Training in Presentation Skills & Nerves

This practical course in presentation skills is for students (BSc and MSc) who get nervous when having to give talks. Marloes Harkema, an experienced skills trainer, will teach you strategies for dealing with nerves and feeling more at ease when standing up in front of a group. In the course, we practise non-verbal communication, the pres-

entation structure and interacting with the audience. The sessions are on three Monday evenings (30/10, 6/11 & 13/11) or three Thursday evenings (23/11, 30/11 & 7/12). Max. 10 people per group. For more info, see Facebook: 'Presentation Panic – Dealing with Nerves' or email marloesharkema@gmail.com.

agenda

Thursday 12 October to 1 November

FILMS FOR STUDENTS

Just Like Our Parents: Brazilian portrait of a woman trapped between generations. *Une Vie*: rich character sketch of the claustrophobic life of a young baroness. Based on the novel by Guy de Maupassant. *Una Mujer Fantástica*: a flamboyant drama about a transgender singer in Chile, an ode to resilience and the lust for life. *Wij oogsten hier geluk*: community supported agriculture (CSA) for farmers and consumers. *Aquarius*: pulsating drama about a widow in corrupt Brazil. *Safari*: unsettling account of hunting in Africa. *The Nile Hilton Incident*: political thriller in Egypt. Venue: Wilhelminaweg 3A, Wageningen.

MOVIE-W.NL

Wednesday 25 October, 16.00

WEES SEMINAR: 'FROM SEX CHROMOSOMES TO SEX DETERMINATION IN LEPIDOPTERA'

Professor Frantisek Marec (Director Institute of Entomology, Biology Centre of the Czech Academy of Sciences) will talk about his work on lepidopteran genetics (the genetics of butterflies and moths), especially pertaining to sex determination and the role of sex chromosomes. A workshop earlier in the day will highlight different cytogenetic techniques used to explore the W chromosome in Lepidoptera. Venue: Impulse.

WEESWAGENINGEN.NL

Deadline for submissions: one week before publication date (max. 75 words)
Email: resource@wur.nl

colophon

Resource is the magazine and news website for students and staff at Wageningen University & Research. Resource magazine comes out every fortnight on Thursday.

Address

Droevendaalsesteeg 4,
6708 PB Wageningen
(Atlas, building 104, bode 31).
POBox 409 6700 AK Wageningen.
Secretariat: Thea Kuijpers,
resource@wur.nl, 0317 484020
Website: www.resource-online.nl.
ISSN 1389-7756

Editorial staff

- Edwin van Laar (editor-in-chief)
edwin.vanlaar@wur.nl, 0317 482997
- Lieke de Kwant (editor)
lieke.dekwant@wur.nl, 0317 485320
- Roelof Kleis (ecology, social sciences, economy),
roelof.kleis@wur.nl, 0317 481721
- Vincent Koperdraat (website coordination)
vincent.koperdraat@wur.nl, 0317 481338
- Linda van der Nat (students, education)
linda.vandernat@wur.nl, 0317 481725
- Tessa Louwerens (animals, nutrition),
tessa.louwerens@wur.nl, 0317 481709
- Albert Sikkema (plant sciences, animal sciences, organization)
albert.sikkema@wur.nl, 0317 481724

Others who work on Resource

Guy Ackermans, Sam van Beljouw, Annie Berendsen, Ton van den Born, Alexandra Branderhorst, Evelien Castrop, Susie Day, Teun Fiers, Marijn Flipse, Stijn van Gils, Aart-Jan van de Glind, Veerle de Goederen, Clare McGregor, Anne van der Heijden, Yvonne de Hilster, Hoger Onderwijs Persbureau, Lotje Hogerzeil, Milou van der Horst, Anja Janssen, Liza van Kapel, Kito, Helena Ligthert, Piotr Kukla, Sven Menschel, Carina Nieuwenweg, Rik Nijland, Henk van Ruitenbeek, Julia Schäfer, Eva van Schijndel, Twan van der Slikke, Joris Tielens, Pascal Tieman, Joost Visser, Didi de Vries, Clare Wilkinson, Rob de Winter, Remo Wormmeester

Design

Geert-Jan Bruins, Paul Gerlach

Translators

Clare McGregor, Susie Day, Clare Wilkinson

Printer

Tuijtel, Hardinxveld-Giessendam

Subscriptions

A subscription to the magazine costs €58 (overseas: €131) per academic year. Cancellations before 1 August.

Advertising

External: Bureau van Vliet, T 023-5714745
m.dewit@bureauvanvliet.com
Internal (reduced rate): Thea Kuijpers,
resource@wur.nl. T 0317 484020

Publisher

Marc Lamers, Corporate Communications & Marketing Wageningen University & Research



>>TYPICAL DUTCH



ILLUSTRATION: HENK VAN RUITENBEEK

Tall people, small stairs and sinks

Before coming to the Netherlands, I read that the tallest people in Europe live in this country. And for me, the Dutch are indeed extremely tall. What surprises me however is that despite their big feet and hands, they have such steep stairs with shallow steps – and such tiny sinks in the toilets.

I was very curious about the tall Dutch people since I am rather short at only 1.53 metres. And indeed, as soon as I arrived at the airport I saw a lot of tall people. When I settled into my student housing, I found it was not at all shorty-friendly. For instance, I could not see myself properly in the mirror in the toilet. I could only see part of the top of my hair if I stood on tiptoe. In the kitchen, I struggled to reach some of the shelves and the electric oven, which was located on top of a fridge. Sometimes I asked my Dutch roommates to help me get stuff from the top shelves, or I would simply stand on a chair and do it myself.

But what I find hardest to understand is why the Dutch have such steep stairs that do not have room for a whole foot. They are tall, they have big feet. It's hard enough for my tiny feet to fit on those stairs. I cannot imagine how they manage. And then those tiny sinks in the toilets! Why? Their hands are larger too. In my country, people are not as tall as here, but not even Dutch people will have any trouble climbing our stairs. They will also feel very comfortable using our big sinks. Well anyway, I have enjoyed meeting people who are taller than me in this country so much that I ended up marrying a tall man. © **Nadia Ordóñez Román**, PhD student of Phytopathology at Wageningen Plant Research, from Ecuador

With their big feet and hands, why do the Dutch have such steep stairs and tiny sinks?

Have you had an interesting encounter with Dutch culture? Send your anecdote (in 250 to 350 words) to resource@wur.nl and earn 25 euros and a jar of Dutch sweets. The editors reserve the right to shorten and edit the contributions before publication.
