Skog Alnarpslu

Southern Swedish Forest Research Centre



After months of Zoom meetings, she looks forward resuming field trips.

The year 2020 was dominated by the pandemic and hand sanitizer. Our operations adapted swiftly to the new conditions. Modifying educational activities so suddenly was a challenge, to say the least.

Even so, course enrolments were strong. Director of education Karin Hielm (pictured above) says that last

year the department taught more students than ever before. In addition to the long-standing Euroforester programme, the new Multiple-use Forestry master's degree began with Linnaeus University. In addition, PhD defences and scientific publications both reached record levels.

Bad times...or good times?

I will remember the year 2020 in the department for two main reasons: the covid-19 pandemic and outstanding developments on the educational front.

Covid-19 brought many strange surprises. I myself had to end the March Euroforester student trip in Lithuania and Latvia a week early and hastily return to Sweden. One can come up with a long list of complaints about missed socialisation with colleagues, cancelled conferences and excursions, and all the complications in teaching. But, when putting things in perspective, I think we coped surprisingly well, finding ways to teach and collaborate effectively. 2020 was full of action, a record year for the department on many fronts.

The advances in our educational offerings were most remarkable. Adding two new educational programmes to our

long-standing Euroforester master's degree is nothing less than a major strategic leap forward. These will benefit the department and society in many ways, such us:

√ More opportunities for senior researchers to seriously engage in teaching, which is the most impactful knowledge transfer from science to practice

√ Stabilising the funding base for contributing researchers

√ Developing new strategic collaborations with partners in Sweden and abroad

 $\sqrt{\text{Producing forest}}$ graduates with broadened horizons

√ Reinforcing southern Sweden's position on the map of European forest education

Forest & Landscape will notably be the first international bachelor's programme at SLU, and I am truly excited to see how many nationalities will be represented at its launch in September 2021.

Things never stop changing and I look forward to my successor taking over leadership of the department from spring 2021. On this occasion, I would like to thank everyone at the department for their collegial work and dedication. I wish the next prefect and all my co-workers success in their engagements, most importantly in nurturing trustful relationships and a good work environme-

Together we are strong!



Prefect Vilis Brukas

A subscription drive for the 'Skog Alnarp' newsletter has added 100 new subscribers, bring the total above 800. The newsletter is also disseminated by media outlets, including the Skogssverige website with over a million annual

You can subscribe, free of charge, at https://bit.ly/32vh7kt

visitors.

During the year, we have



also updated the department's website and social media activity has increased.

In august the Skåne Forest Strategy was adopted, which was celebrated by planting a genetically-improved ash tree in Alnarp. The department is an active partner in this and several other regional plans to "take advantage of green gold" which is an overarching goal of the national forest programme

Website: www.slu.se/sydsvensk-skogsvetenskap

Postal address:: Institutionen för Sydsvensk Skogsvetenskap, Box 190 234 22 Lomma Visiting address: Sundsvägen 3, Alnarp, **Email addresses**:firstname.familyname@slu.se

Contacts

Prefect Vilis Brukas

Deputy Magnus Löf

Education

Directors of studies

Jaime Uria Diez: Ed coordintor Karin Hjelm: Multi-purfose forest and Forest and landscape Magnus Löf: Euroforester

Euroforester coordinators

Desiree Mattsson Andis Zvirgzdins

Vice-prefect for graduate studies

Annika Felton

Vice-prefect for research

Michelle Cleary

Research

Silviculture Eric Agestam

Jorge Aldea
Giulia Attocchi
Ignacio Barbeito
Henrik Böhlenius
Per-Magnus Ekö
Karin Hjelm
Emma Holmström
Magnus Löf
Urban Nilsson
Jens Peter Skovsgaard
Narayanan Subramanian

Pathology

Michelle Cleary Carmen Romeralo Jonas Rönnberg Patrick Sherwood Johanna Witzell

Lab tech: Mohammed Elsafy

Ecology

Jörg Brunet
Jaime Uria Diez
Igor Drobyshev
Adam Felton
Annika Felton
Per-Ola Hedwall
Matts Lindbladh
Mats Niklasson
Lisa Petersson

Policy planning

Vilis Brukas Ola Eriksson Carl Salk Renats Trubins Gudmund Vollbrecht

Tropical forest/seed research Per-Christer Odén

Administration

Finance Zhanna Möller
HR Violeta Kokos
IT Klas Pernebratt
Magnus Mossberg
Maintenance Kent Hansson
Project coordinator
Mimmi Blomquist

Media/cooperation

Extension

Henrik Böhlenius **Media** Pär Fornling Katarina Ekegren

Education

A record number of new students and continued growth in education

When the autumn term began, the department had about 60 students enrolled in courses in either Euroforester or the new Multiple-use Forestry master's programme.

"I never thought we would have been so many and continuing to grow. In the autumn, the three-year Forest and Landscape bachelors' programme will begin," says programme director Karin Hjelm.

Of course, this year brought special challenges. Two Euroforester courses were held entirely at a distance (see article below), while other courses were adapted to the new restrictions.

"We just barely had enough space in our classrooms, and we had to arrange extra vehicles for excursions, but the course leaders did a good job at piecing together the courses within the guidelines,"

However, the Sverigeresan had to be cancelled.

Normally, jägmästar students receive five weeks of instruction from the department as a degree requirement. This trip has preliminarily been rescheduled for spring

2021

In addition to some stand-alone courses, in fall 2021, there will be three forestry degree programmes in Alnarp:

- √ Euroforester
- √ Multiple-use Forestry
- √ Forest and Landscape

Euroforester is a two-year master's programme. It began as a collaboration among three Baltic countries and a majority of the students still come from around the Baltic Sea. In 2020, there were 12 countries represented.

Most take the entire master's programme, but some take individual courses.

Multiple-use forestry is a joint master's program with Linnaeus University. It has two years of full-time instruction, but can also be taken half-time.

"It feels good to collaborate among institutions and gather

strength in southern Sweden. One can say it began with the FRAS project on future forest management in southern Sweden, which also includes Skogforsk, and employs six doctoral students. And now we have this programme together with Linnaeus University."

"In the first year we enrolled about 20 students. Distance education was planned from the beginning, with some meetings in the field, which of course was an advantage in a year like this," says Hjelm.

Last year, everything came together for the three-year Forest and Landscape bachelor's programme. It is a collaboration with the Faculty of Landscape Architecture, Horticulture and Crop Production Science (LTV) in Alnarp. Wageningen University in the Netherlands also participates.

It is a meeting of two different competencies: forest science and landscape architecture. One subject area is to manage urban forests so they are both productive and attractive. After exams, it



is possible to begin working directly, or continue into a two-year master's programme with a focus on forests or landscapes.

"It feels good to develop collaborations with landscape architects in Alnarp. The programme, beginning in fall 2021, will have an international focus. We have already had well over a hundred preliminary expressions of interest from other countries for the 30 places. We hope this interest will continue all the way," says Hjelm.

"I am optimistic about all of our educational programmes. We study timely questions. Forests have a crucial role in sustainability, climate and the environment. This knowledge is in demand and these are fun questions to work with."

Hand sanitizer, Zoom and videos

It was a race against the clock to adapt teaching to the new conditions.

One person who had to do some rethinking was Jens Peter Skovsgaard, professor of silviculture.

When spring began in Alnarpsparken, everything was as usual. He focused on research, and began preparations for the autumn Silviculture of Temperate Forests course.

The course is about deciduous and mixed forests, and emphasizes value production. It is about maximising the

value of individual trees or stands, not just uniform volume production.

These are forestry methods that are widespread in Denmark and Germany, where students make long study visits in normal years. About 40% of teaching happens in forest excursions.

"This is a very good way to convey knowledge, and of course I would have thought the same this year, but in April I began to suspect that it would not work as usual," says Skovsgaard.

He began to think about whether field education could be replaced with videos. After a few weeks, the thoughts



began to take a more solid

On May 30th, Skovsgaard made his first test film with his wife, which became a



short movie about flowering hawthorn and its cultivation.

It was all a new experience. He taught himself how to use a still camera to shoot movies with a separate audio recorder, tripod, and film-editing software.

"Of course, some mistakes were made. I once had to redo almost an entire day's work because I lost the sound.

I also hired a videographer for a while to learn more, which was good. But it is not easy for a hired worker to know what to focus on in a forest while filming. There were a lot of misses."

The course had 20 students from several countries and it began to be clear that some of them could not come to Alnarp due to travel restrictions. In June, Skovsgaard decided to run the entire course using distance learning.

Thus began intensive work lasting until the course began on August 31st. He filmed 20 hours of movies, most in 40-60 minute units. Most time consuming was splicing together huge amounts of footage.

Then came nine weeks of teaching with a combination of Zoom meetings and movies.

"It went better than I dared hope in the spring, but videos and Zoom are of course incomplete replacements for field trips and personal meetings.

Everyone completed the course, but some did not pass the exam. The course evaluation was not as good as usual, but under the circumstances it still went well," summarises Skovsgaard.

"Pedagogically and technically, of course, it provided a lot of experience and lessons about distance education. And I hope the videos can be reused in other contexts. They are a huge teaching tool both for education and communicating research results. This has given us useful experiences that we will benefit from even in more normal times."

Research

New faculty professor

In the spring, Vilis Brukas will end his mission as prefect to work full time as a professor of forest planning, which is a very broad topic. "You can also call it a professorship in forest policy," clarifies Brukas.

It is a subject he has long worked in with both research and teaching. For 15 years, he has led the Euroforester course in forest policy, which he will continue doing in his new role.

Vilis notes that the international Euroforester network, with connections to other universities and over 800 Euroforester graduates is an important asset for research as well.

"We can learn a lot from comparisons among different countries, for example in the implementation of forest policies."

"Many work within clear laws, while Sweden focuses on advising. The question is what happens when extension services are cut."

"For me, it is important that research is useful and meaningful. I thrive on research that goes deep and tries to answer big questions, for example why forestry is



conducted so differently in the countries around the Baltic Sea, or which instruments can address and resolve land-use conflicts in different parts of the world."

"It will be fun to build up our group that works with these questions."





On January, 11 Lisa Petersson defended the dissertation "Replacing Scots pine with Norway spruce: implications for biodiversity in production forests."

On April 3, Mattias Engman defended the dissertation "Odor guided predation on acorns by small rodents during direct seeding."





On May 4, Emma Sandell Festin defended the dissertation "Post-mining restoration in Zambia – Screening native tree species for phytoremediation potential."

On June 12, Adrian Villalobos defended the dissertation "Forest restoration using direct seeding of oak: Odor cues from predators as a seed protection strategy against foraging rodents."





On September 8, Isak Lodin defended the dissertation "Current versus alternative forest management practices in southern Sweden."

On November 6, Guilherme Stecher Justiniano Pinto defended the dissertation "A multi-century perspective of the Sala mega-fire: understanding risks for future fire activity in Sweden."

A year with many new PhDs in Alnarp

In 2020, a total of seven PhD students defended their dissertations, tying the record set in 2016.

On average over the last decade, three people per year have defended dissertations at the Southern Swedish Forest Research Centre.

And more are on the way. At the beginning of 2021, 15 PhD students were working in the department: Martin Goude, Karin Amsten, Mikolaj Lula, Delphine Laviviere, Mostarin Ara, Khaled Youssef, Laura Juvany Canovas, Noelia Lopez-Garcia, Axelina Jonsson, Ida Nordström, Hanna Bernö, Amanda Segtowich, Joan Diez Calafat, Tatiana Klisho and Andis Zvirgzdins. About half of the PhD graduates in the department's near-30-year history work on forest-related questions at companies, organisations or as property managers. Many have continued research in the academic world and some have sought out completely new fields.



On November 11,
Oscar Nilsson nailed
the dissertation "Establishment and growth
of Scots pine and
Norway spruce – A
comparison between
species."

Record level for annual publications

Publishing by departmental researchers continues to be strong. A total of 76 peer-reviewed scientific articles in international journals tied the record number seen in 2019.

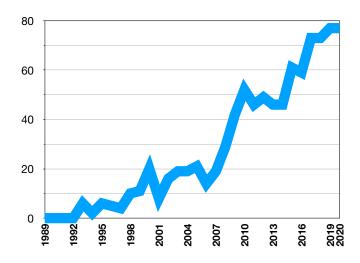
Here is a list of publications and book chapters by first author. Names of researchers from the Southern Swedish Forest Research Centre in Alnarp are in bold. If the article has more than six authors, only the first author and authors from the department are listed.

At the end, there is also a list of popular science publications.

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