

English for Plant Biologists

Lesson No. 4

Spring 2013

Miloš Barták

Institute of Experimental Biology
Plant Physiology and Anatomy
University Campus Bohunice, Kamenice 5
62500 Brno, Czech Republic

Warm up exercise

Self do, sef have.

He is a slave of the greatest slave, who serves nothing but himself.

What is she doing?



She is Sarah Parsen with samples for a pH test at the new Soils and Plant Analysis Lab

Source: <http://news.cals.wisc.edu/photos/photo419.jpg>

What is that for ?



- <http://ultra-health.org/wp-content/uploads/2009/02/lidia.jpg>



This is Chris Still doing something. What is that?

Chris Still measuring photosynthesis in *Eragrostis grandis*, a C4 grass endemic to the Hawaiian Islands

mangrove



<http://www.floridaadventuring.com/images/red-mangrove.jpg>

The
forest type is
called...



<http://www.susanscott.net/OceanWatch2008/images/P1110359.jpg>

Describe, what you see.



Source: http://www.europe-center.org/ec-blog/wp-content/blogs.dir/2/files/2008/08/080331_cutting_trees_06_rkk_send.jpg

This is experimental breeding station. What do they breed?

Raspberry, of course.



Source: http://www.cals.ncsu.edu/hort_sci/highlights/raspberry01l.jpg



What do you think is her field of study?

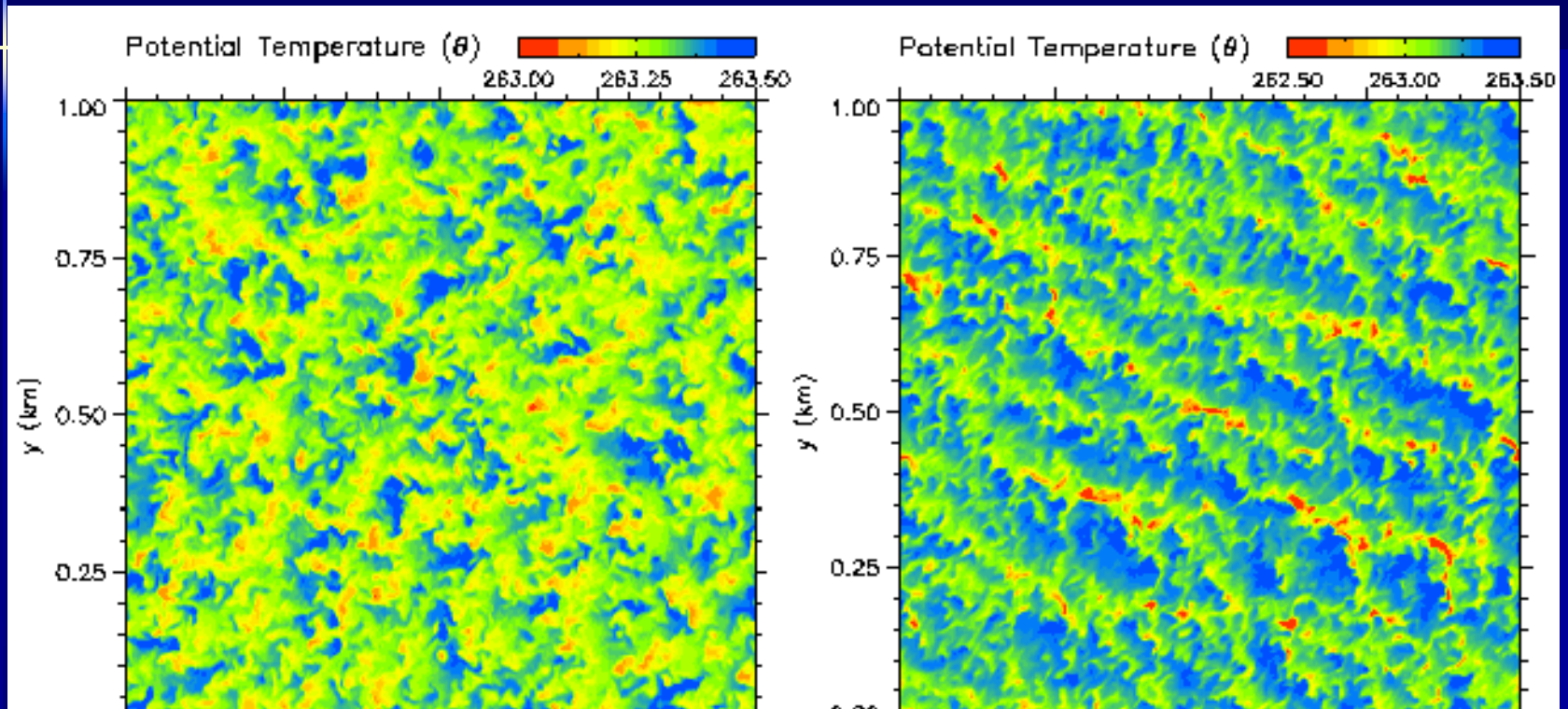
I am currently an Environmental Studies major and undergraduate researcher in the Damschen Lab. I am interested in plant ecology, especially in the effects of climate change on plants and plant communities. My current research focuses on patterns of plant stress along gradients of aspect and slope for mountainous systems in Southwestern Oregon

Source:

biology4.wustl.edu/faculty/damschen/Barry.html

Canopy. Source: www.asr.ucar.edu/2004/MMM/img/patton_surface2.png

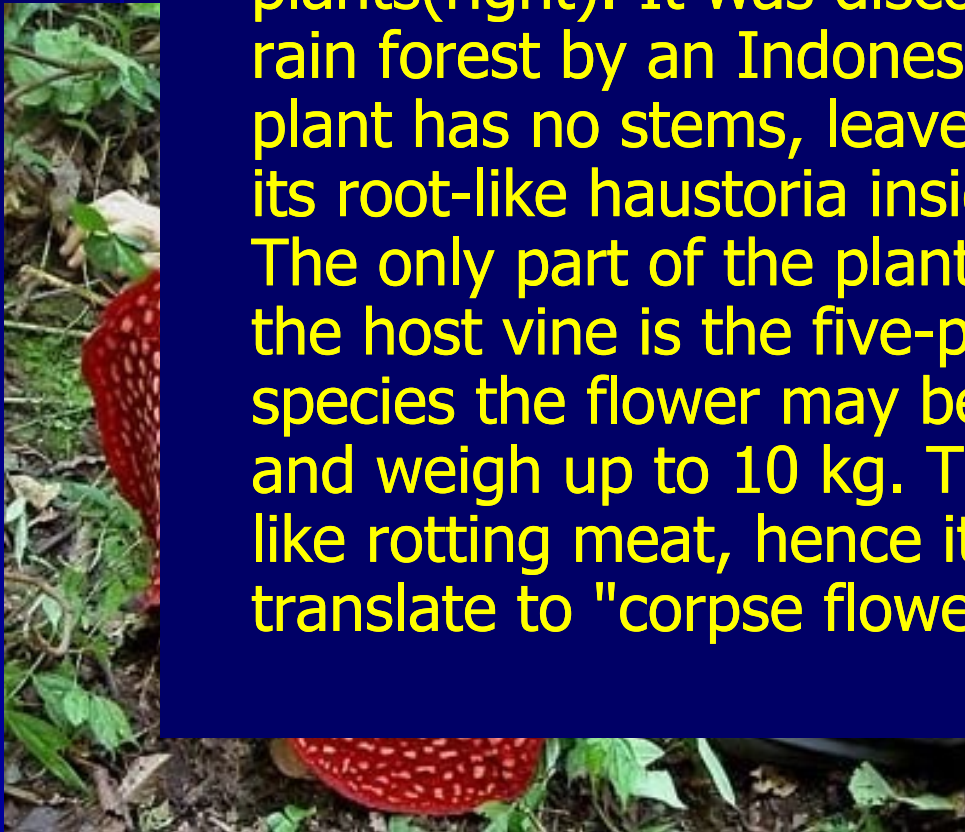
What are you looking at?



Using high-resolution large-eddy simulations, E. Patton and Peter Sullivan are investigating the interplay between stable stratification and canopy turbulence. Compared to simulations with no vegetation, a stably stratified canopy reduces the height of the nocturnal jet and the pressure drag alters the momentum balance resulting in lower turbulence levels

Some strange plants

- Rafflesia is a genus of parasitic flowering plants(right). It was discovered in the Indonesian rain forest by an Indonesian guide in 1818. The plant has no stems, leaves or true roots. It spreads its root-like haustoria inside the tissue of a vine. The only part of the plant that can be seen outside the host vine is the five-petaled flower. In some species the flower may be over 100 cm in diameter, and weigh up to 10 kg. The flowers look and smell like rotting meat, hence its local names which translate to "corpse flower" or "meat flower".



What is she doing?



- Cornell Student Taran Sirvent prepares *Hypericum perforatum* for chemical analysis. A glass funnel directs the plant matter into an Erlenmeyer flask.

Life Processes

- Movement- the ability to move from one place to another
- Respiration – a chemical process that takes place in every living cell
- Sensitivity – the ability to respond to your environment
- Nutrition – turning food into energy
- Excretion – getting rid of waste products
- Reproduction – producing offspring
- Growth- becoming larger in size

Please read and associate with some plant part

weeding

wedding

willing

wilting

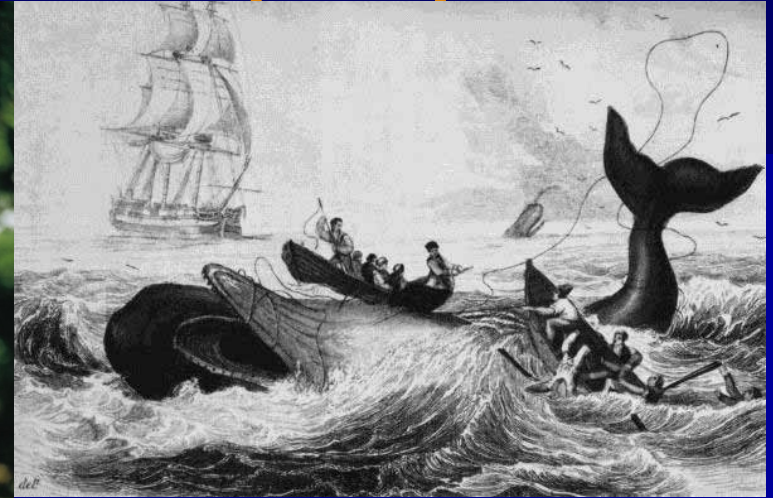
warning

warming

winding

welling

whaling



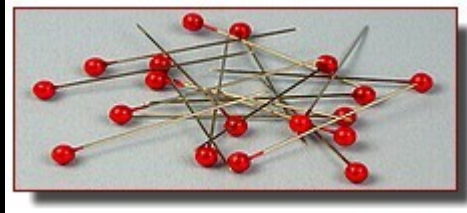
Navíjení, otáčení



Please find out to what picture the term is related.

It is a repetition of vocabulary that you should know.

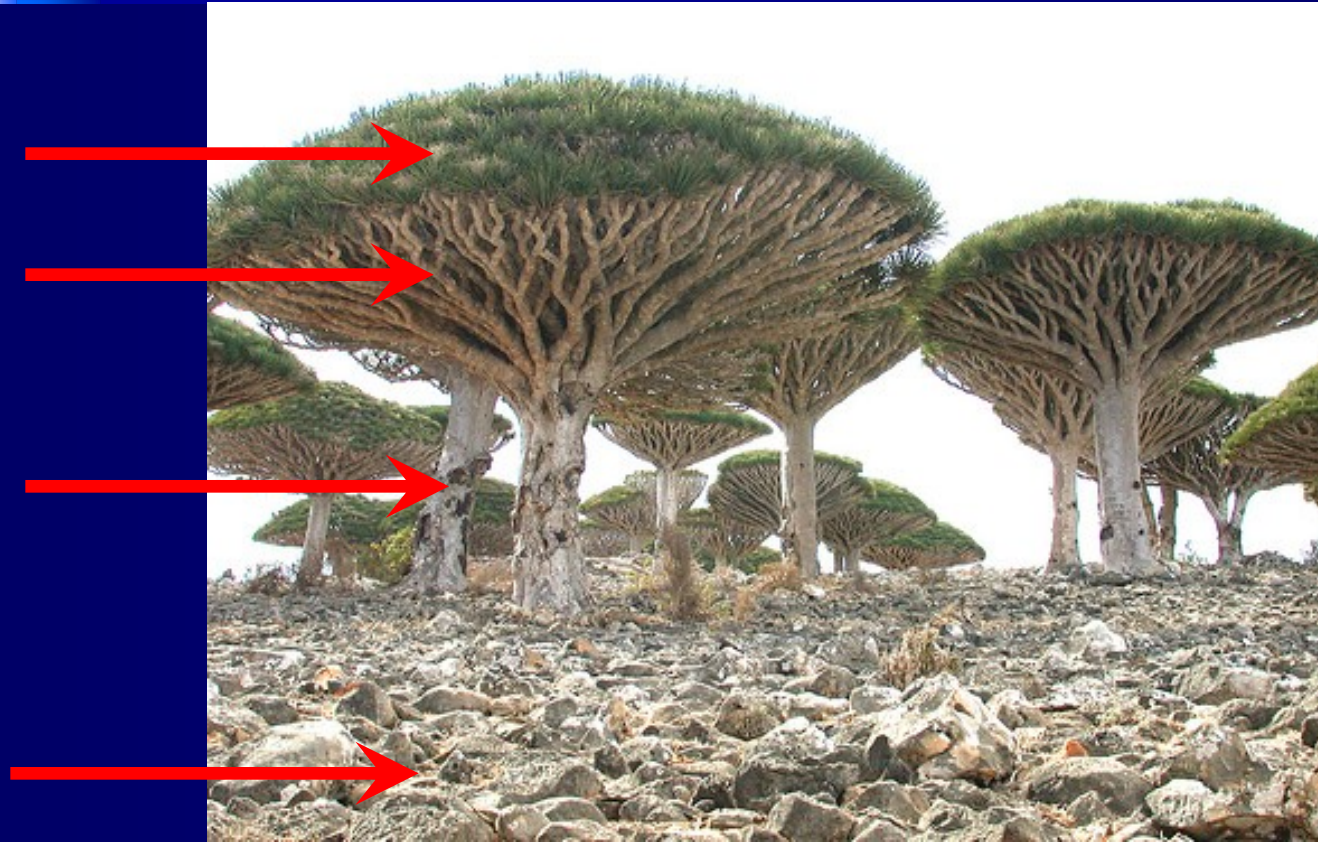
primate
private
pinhead
pinnate
pancake
panther
pathfinder
pimiento



Please find out to what picture the term is related.

sources: pin.primate.wisc.edu, <http://www.autotodays.com/2010/09/20/2011-nissan-pathfinder/>, atlanka.net, tastydays.com

Let's continue to the Worlds of extraordinary plants



What do you think looks extraordinary in these trees ?

- Source of photo: <http://traveldelirium.com/page/2/>

Advanced English for Plant Biologists

1) Which question is correct?

Did he ride his bike two hours ago?

Did he ride his bike yet?

2) Which sentence is correct?

They have never written a text message.

They have not written a text message in the last lesson.

If clauses (fill-in exercise)

If I the lottery, I a chance to hit the jackpot.

If I **played** the lottery, I **would have** a chance to hit the jackpot.

If I the jackpot, I rich.

If I **hit** the jackpot, I **would be** rich.

If clauses (fill-in exercise)

If I rich, my life completely

If I **were** rich, my life **would change** completely

I a lonely island, if I a nice one

I **would buy** a lonely island, if I **found** a nice
one

If clauses (fill-in exercise)

If I a lonely island, Ia huge house by the beach.

If I **owned** a lonely island, I **would build** a huge house by the beach.

I all my friends if I a house by the beach.

I **would invite** all my friends if I **had** a house by the beach.

If clauses (fill-in exercise)

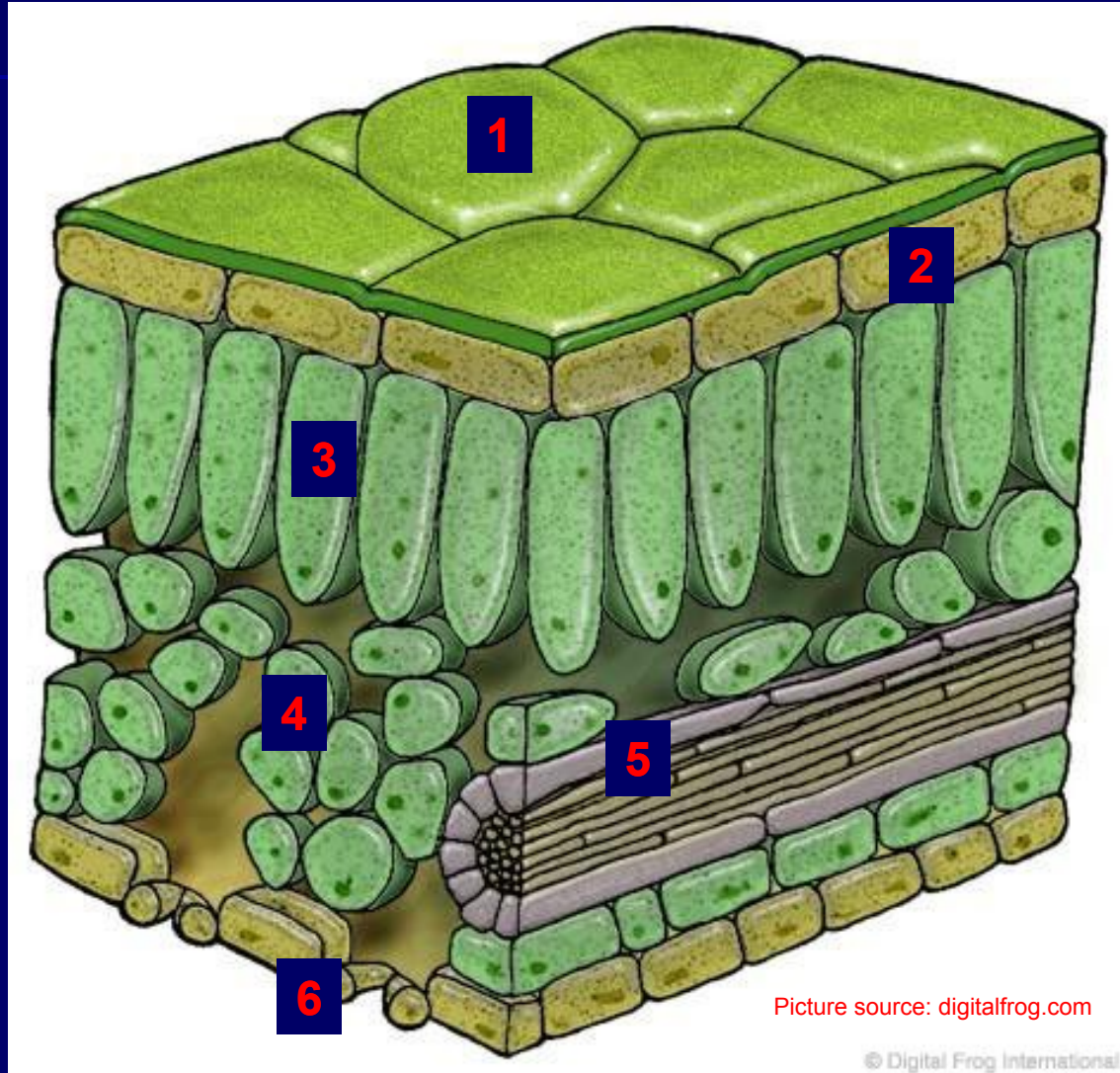
I my friends up in my yacht if they to spend their holidays on my island

I **would pick** my friends up in my yacht if they **wanted** to spend their holidays on my island

We great parties if my friends to my island.

We **would have** great parties if my friends **came** to my island.

It is a good idea to check your knowledge of plant anatomy, isn't it?

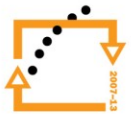


Picture source: digitalfrog.com

© Digital Frog International



EVROPSKÁ UNIE



**Ladies and gentlemen,
thank you for your attention**

See you next week.



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Tato prezentace je spolufinancována
Evropským sociálním fondem
a státním rozpočtem České republiky

Lesson No. 8

- Repetition:
- terminology related to negative effects of volcanic activity on plants
- What are they doing?
- Exercises