

Borearctia menetriesii Experiment

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Starting point in Finland: 3rd last instar 1.VIII 2011.
Young larvae grow fast (odd year).
A highly demanding taiga species prefers dandelion!



2nd last instar 6.VIII 2011 (exceptional 1-year cycle).
Bog plants (incl. Pinus, Picea) are NOT accepted!!!

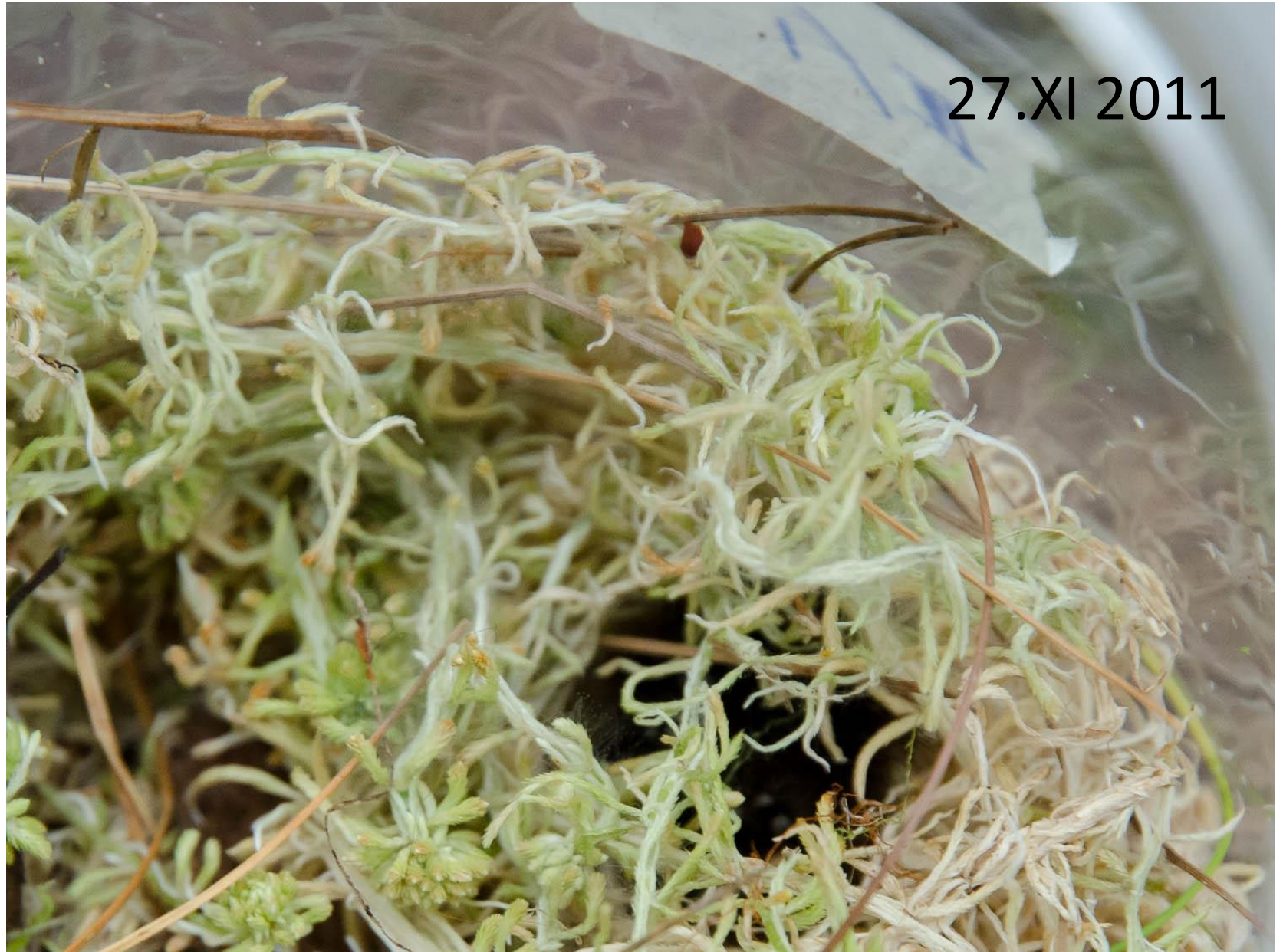


2nd last instar after the 1st winter (representing 2-year development) prefers Larix and lettuce



Last instar 15.VIII 2011 (1-year development)

Overwintering in a Sphagnum cave





Overwintering 27.XI 2011
Simple tissue paper always works the Best!

Fungus Development During the Hibernation (22.IV 2012)

Sphagnum should have antiseptic and antibiotic properties



Odd Year Spring



- The 2nd overwintering fully grown in moss
- No feeding after the 2-winter, but drinking water
- Climbing high on a tree to spin and pupate
- Flight period: end of June to beginning of July

Climbing to a "Tree"



- A grown larva seeking a place for pupation climbed at 22.30 - 3.00 about 20 m upwards in a gauze cylinder that was turned upside down several times (by Matti).

A Thin Cocoon on a Branch or Trunk
Head Upwards



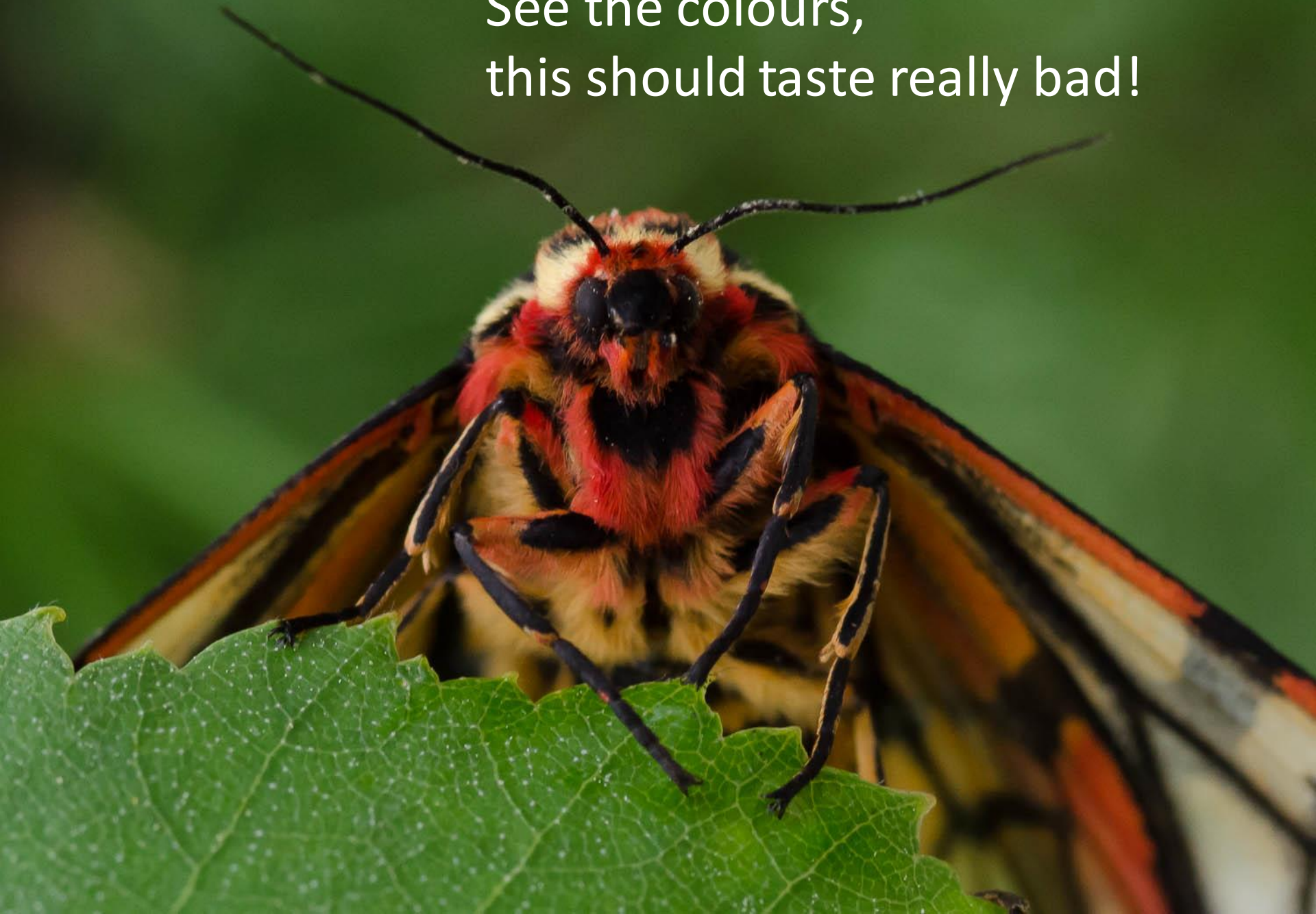






If you see an ovipositor
don't believe your eyes!
This is a ♂

See the colours,
this should taste really bad!



Males like to rest like this on the floor upto 24 h



But why is he exhibiting the valvae??? (No answer)

Hypotheses

- Ova are hatching after 1-2 weeks in July
- Rapid growth, perhaps using differing host plants
- Larvae are active mainly by night (nothing strange there)
- The 1st overwintering near ground (5th instar or earlier)
- No feeding between September-End of May
- Feeding again early summer, at least two moultings
- Rest of the year fully grown in a sphagnum cave
- No feeding after the 2nd winter, drinking water
- End of May climbing high on a tree, pupating
- Pupal time 3 weeks outdoors
- Flight time: not flying, but rather sitting on a branch





Material

- Near Chara, Chita province, Russia
- 56° 43' 57" N, 118° 2' 4.92" E
- Ex ovo, ♀ 3.VII. 2011 Oleg Korsun leg.
- Larvae 15.7.2011
- Finland 1.8.2011, 3. last & 4. last Instar (of 7)
- Organiser Hannu Saarenmaa
- <http://bormene.myspecies.info>

Long Day, No Overwintering, Room Temperature, MA

Start, 3. last instar	1.-2.8.
2. last	7.-8.8.
Last Instar	18.8. & 21.8.
Spinning	3.9. & 11.9.
Pupa	6.9. & 14.9.
Hatching	♂ 21.9. ♂ 22.9. ♂ 4.10.

Overwintering in the Last Instar

Room Temperature, KS

Start, 3. last instar	1.8.
2. last	6.8.
Last instar	15.8.
End of feeding	31.8.(-12.9.)
+15 °C (Cabin)	1.9.(-13.9.)
Outdoors	18.9. (6 larvae)
White Fungus detected	27.11. onwards
Spring	1 alive, did not pupate

Overwintering in the 3. Last Instar Cabin +15 °C 1.8.-18.9.2011, KS

3. Last Instar	11.-22.8. 2011
Outdoors, Winter	18.9. Five larvae
Indoors, Spring	All alive 22.4.2012
2. Last Instar	29.4.
Last Instar	5.-8.5. Spinning 21.5.
1. Pupa	24.5. head upwards
Hatching	♂ 7.6. 23.00, 12.6. 6.30 ♂♀ 14.6. before 5.30

Flight Tests 16.-17.6.2012

- 16.6. at 22.00 ♂ climbs 10 cm from the bottom.
- At 23.40 flying around the pheromone.
- At 23.45 lands on the wall, staying till the next day.

- 17.6. at 8.15 another ♂ flies to the lightest window.
- At 11.45 it flaps strongly (cloudy and rain).

- 17.6. at 15.30 another ♂ flies 2 m to the center of the floor and stays there to the next day.
- Response to the sunshine normal for a moth

Host Plant Preferences (KS)

- *Taraxacum* better than *Plantago*
- *Taraxacum* b. t. *Larix* (in the autumn)
- *Salix* b. t. *Taraxacum* (in the autumn)
- Salad or *Larix* b. t. *Salix* (in the spring)
- Boreal plants (*V. uliginosum*, *myrtillus*, *Ledum*, *Rubus*, *Picea*, *Pinus*) were hardly accepted!!!
- Others had partly differing opinions!
- More questions than answers