



THE BEELINE

Olympia Beekeeper's Association Newsletter
October 2011

Next Meeting: Don't forget location change Monday, October 10, 2011	Chinook Middle School 4301 6th Ave. Lacey, WA 98516 Class at 6:00 p.m., Meeting at 7:00p.m.
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President's Note

Dear Members,

I hope you are all enjoying the extended summer. With the poor spring we had, and the cool summer. It is nice to get a break in the weather. As the honey is coming off, remember to see what the bees still have to get to spring on. If I can keep from feeding in the Spring I prefer it. I will feed 2 of the swarms that I got in early July that has only about 20 Lb's that they were able to draw up. Also remember to get the mouse guards on the front of the hives. At this time of year it is a good to get them on early. As it gets colder at night the mice will start looking for a place to winter. Four walls, good roof, Central heating, and bee candy (crunchy outsides and a honey center).

I was glad to see so many that had made it to the last meeting. In the new digs. I had some very nice comments. Bob seems to be happy with the new classroom. Please remember that the Washington State conference is in our back yard on the 27,28, and 29 of October. Please see Bob Smith at the next meeting for paperwork, or go to the wsba web site.

Thank you all who worked the booth at the Puyallup Fair this Year. With your help, we filled 15 hours of fair time. Thank you! Keep your eyes on your bees now, so you will have them next year.

Mark

September Minutes

September 12, 2011

Beekeeping minute notes. Approximately 70 people attended. Meeting started at 7:08 pm.

"Newbees" introduced themselves. We had approximately 12 new people at the meeting.

The beginning beekeeping class had approximately 43 people.

Our club now has insurance coverage for our meetings, outreach workshops, fairs, and classes. L and I no longer offer coverage to non-profit organizations. Our treasurer, Andrea Broyles managed to find us coverage for only \$500.00 a year.

Librarian notes: Most of the materials have been returned. Please return checked out material to Susan Dolvin either at our beekeeping meeting, or return checked out materials to her workplace located at the downtown YMCA in Olympia. The club has four available extractors and a few tubs and electric knives. If you would like anything, please talk to her.

New Business:

Rich Kalman has collected bees for virus survey.

New membership: Becky Emrich. Becky has created a new membership packet, which include suppliers, magazine offers, calendars, and other such information.

Rich Kalman: Mentoring. Rich is seeking a volunteer to take over the mentoring program.

Mark Emrich needs more volunteers for the State Fair. Volunteers will have admission and parking paid for.

Bob Smith tried to hand-out certificates. No one was available to receive the certificates. Apprentice meeting is next Monday.

Washington State Beekeepers Convention is in Federal Way between October 27 and 29. Go to WASBA.ORG for more information. This convention is highly recommended by several members.

Don't forget the Food Summit South Puget Sound. October 14 is a potluck in front of the Washington Center between 5-6pm, and the Environment and Agriculture Expo is between 5 and 9pm. The Conference is on October 15th at the Thurston County Fairground between 5 and 9 pm.

At our last meeting a private donor agreed to pay (for the club) the \$250 Expo fee. The private donor unfortunately passed on paying. Gail has offered to pay \$50.00. We had motion to first see how many private donations received. If we had any excess funding additional funds would go the Food for Summit organization.

We had approximately \$60 in excess funds.

Delegate: John is going as a delegate for the Beekeeping Club at the Expo. He is paying for himself.

September 26th, the Olympia Center Council will have the urban agriculture ordinance meeting.

Future business: Children's Museum is opening next summer. Discussion for a bee display is possible in the future.

Dave Ragsdale has a program on Beneficial Bugs on September 24 between 2:30 and 3:30 located at The Barn Nursery in Tumwater.

Bob Smith: Brought up a beekeeping workshop between June 24 and 25 in Pullman.

Washington State Beekeepers Association

Do not forget the Washington State Beekeepers Association is between October 27 and October 29, 2011. Located in the Best Western Evergreen Inn and Suites, Federal Way.

The Washington State Beekeepers announced a PNW Mortality Survey, please take a moment to fill out the survey. See their website for information. WASBA.ORG

Additionally the WSBA has a honey diagnostic lab. To submit samples visit their website for more information.

Bee News

Found at:

http://www.upi.com/Top_News/US/2011/09/30/Bees-mysteriously-die-in-Florida-county/UPI-61721317416699/

FELLSMERE, Fla., Sept. 30 (UPI) -- Mysterious deaths of bees in hives in Florida's Brevard County have beekeepers and officials mystified as to how it happened, they say.

Beekeeper [Charles Smith](#) of Fellsmere said he found mounds of dead bees spilling out of his 400 hives Monday and that another beekeeper maintaining hives about 1 mile away reported a similar amount of dead bees, Florida Today reported.

"This is a total wipeout," said Smith, who estimates he lost \$150,000 in honey proceeds, the bees and their future generations.

Brevard County officials said they don't think recent mosquito control spraying in the area killed the bees.

But die-off left had all the hallmarks of a pesticide kill, experts said.

"Right now it's too early to start pointing fingers at anybody," University of Florida entomologist Bill Kern said.

"The fact that it was so widespread and so rapid, I think you can pretty much rule out disease," he said.

"It happened essentially almost in one day. Usually diseases affect adults or the brood; you don't have something that kills them both."

State agriculture officials collected dead and dying bees from both hives to test for pesticides, which could take several weeks.

"Right now, we don't know what pesticide, if any, was involved," Kern said. "If there's a real high level, it's going to be pretty obvious."

Dipping tongues allow bees to drink the sweetest nectar

By Leila Battison Science reporter

Found at <http://www.bbc.co.uk/news/science-environment-15068454>

US mathematicians have worked out why the flowers pollinated by bees have sweeter nectar than those visited by butterflies.

When it comes to drinking nectar, the most important factor is whether the insects dip their tongue in, or whether they suck the liquid up.

The sweeter the nectar, the thicker it is, and research found that the dipping method of bees is ideal for drawing up the most viscous liquid.

They published their results in [PNAS](#).

By making mathematical models that take into account how the thickness, or viscosity, of nectar changes with increasing sugar concentration, the researchers were able to find out

what feeding method was best for drinking nectar with varying sweetness, testing the idea that plants and their pollinating insects have co-evolved.

It has been seen in the past that the flowers that bees visit have consistently sweeter nectar than those that butterflies target, but scientists have been unsure of why this is the case.

Thickly sweet

Butterflies and moths drink nectar by actively sucking it through a narrow proboscis, whereas most bees have a tongue which they can dip into shallow nectaries on a flower.

For bees and butterflies alike, there is a constant threat of being eaten while they are feeding at a flower, so they must eat in the most efficient way possible.

While a sweeter nectar will contain more calories and energy, it will also be more viscous and difficult to transport.

Butterflies browse large clusters of flowers, probing the blossoms with their proboscises

A nectar-drinker will therefore seek out a flower with an optimal sugar concentration, which can deliver as many calories as possible without being too difficult to extract.

The mathematical models combined with laboratory observations found that the ideal sugar concentration for bees who dip their tongue into nectar was 50-60%, whereas for butterflies it was much less, around 30-40%.

This pattern matches closely with the observed sugar concentration of the flowers visited by bees and butterflies in the wild - around 35% and 20-25% respectively.

While the pattern is the same, the sugar concentration in the wild nectar is considerably less than the optimal concentrations shown by the mathematical models.

Scientists believe this may be because the flowers prefer to keep their pollinators hungry, so that they will faithfully return for more food, pollinating more plants in the process.

Optimising together

The results are suggestive of the co-evolution of flowers and their pollinators, a pattern that is seen throughout nature.

Prof John Bush from the department of mathematics at Massachusetts Institute of Technology (MIT) in the US, who led the research, explained: "Biological systems are optimised, but to an outside observer it is not always clear what they are optimised for."

"This research has opened up the scope of the optimisation problem, as we're looking for the situation that is ideal for the flowers and for the pollinators," he said.

From a plant's point of view, making sure the same kind of creature visits a particular kind of flower makes it more likely that pollen will be transferred between plants of the same species, allowing successful reproduction.

In addition to the sugar concentration of nectar, other features of a flower could be designed to appeal specifically to a certain kind of pollinator.

For example, it is believed that patterns on petals that are only visible in ultraviolet light are designed to attract bees, whose eyes are particularly sensitive to the blue and ultraviolet end of the light spectrum.

Drinking mechanisms in nectar-feeders provide a good natural analogue for more general studies of surface tension in liquids.

"Surface tension is important for things that are small," said Prof Bush. "On scales smaller than a raindrop, surface tension is more important than gravity."

Prof Bush's research group plans to use lessons learnt from these the natural analogues to develop nanotechnology that can deliver fluids on a small scale.

This research into nectar drinking, conducted by engineers and mathematicians, is part of a wider project to categorise, and potentially utilise, the range of drinking techniques in nature.

For example, Prof Bush described the remarkable drinking ability of the Namib Desert beetle. "In the desert it never rains, but this beetle still needs to drink," he explained.

"On its back there are bumps which attract water from the morning mist, and depressions that repel water. When enough water accumulates on the bumps, the droplets are repelled down to the beetle's mouth."

Such a technology has already been developed by MIT researchers into so-called "super plastic", which is used to collect water from the air in the driest regions of the world.