



MISSOURI STATE BEEKEEPERS ASSOCIATION

Newsletter May 2017

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Missouri State Fair

The Missouri State Fair will soon be here in just over 100 days. Actually, August 10 - 20, 2017 isn't that far away.

The Missouri State Fair Committee has been busy making preparations since the close of the 2016 fair. Dean Sanders is the Missouri State Fair Chairman. He is setting dates for local clubs to work the fair booth, plus individuals are always welcome to work. It is a great way to meet with Missourians, both beekeepers and bee friendly folks.

To schedule your time to work the fair booth please contact Dean Sanders at (816) 456-4683. Help is needed with the cash drawer,

educating people about honey bees, assistance with the observation hive, restocking, and visiting with the fair visitors. It is a lot of work, but certainly a lot of fun.

Please consider entering the apiculture contest. This year, like last year, entries will need to be entered into competition on Monday before the fair begins. Entries must arrive no later than 5:00 PM on Monday August 7, 2017.

Judging is arranged by the Missouri Department of Agriculture and will be on Tuesday, August 8th.

There are individual and group competitions. The competition entries are so beautiful it is worth the trip to Sedalia to see them for yourself. Competition entries will be on display until the end of the fair and must be picked up after 6 PM on August 20, 2017.

Call Dean Sanders to set up your time at the MSBA fair booth. Dean and the Fair Committee look forward to seeing you each year. Thanks for your competition entries and assistance with the booth! We will see you in August.

Congratulations! Mineral Area College Is 24th Bee Campus USA in Nation!

Congratulations! Mineral Area College (MAC) has met the standards for certification as an affiliate of Bee Campus USA and has been added to the list of campus affiliates. It is exciting to hear all the ways they made their campus a showplace for pollinator habitat. MAC is making the world safer for pollinators!

To learn more:

<http://www.beecityusa.org/current-bee-campuses.html>

President's Note - Clayton Lee

Hello from Smithville, Missouri! MSBA's Executive Committee has been a busy bunch of volunteers. Year around planning has been the order of business for the State Fair, Fall & Spring Conferences, and the Regional Directors do their best to stay connected with local clubs and associations. We also like to pay attention to our own bees.

I have been busy making modified Freeman Bottom boards with aluminum strips (painted with NeverWet) and I load a shallow drawer with pickling lime! They seem to be just the ticket for fighting small hive beetles.

Please feel free to let me (or anyone on the Executive Committee) know what you would like to see MSBA accomplish this year. If there is a specific speaker you would like to see at one of our conferences or ideas on how to change things, please let us know. My email is leeland55@gmail.com.

I hope you have time to read through this newsletter. We try to provide you with some useful information. If you have information to share in our next newsletter, let us know. I hope your days will be filled with great times with honey bees!

MSBA Newsletter Editor Vacancy

If you like gathering and organizing useful beekeeper information, we have a volunteer job for you! There is an opening for a Newsletter editor and we will help you get the ball rolling. Beekeepers from all over the state/nation can provide you with good data and all you have to do is put it together in a document. This also a voting position on the Executive Committee.

If interested, contact Clayton Lee :
leeland55@gmail.com or (573) 864-5172.

Temporary Break for USDA Disease Diagnostic Service

Due to a staffing crisis, the USDA-ARS Bee Disease Diagnostic Service in Beltsville, MD will be on hiatus, effective immediately.

The University of Maryland Bee Lab has graciously supported Mr. Samuel Abban as he leads this 100-year old program, but Samuel is now needed full-time for a critical University project. Every effort is being made to finalize the hiring of Samuel as a USDA employee so that he can continue this program.

Please do not submit new samples until further notice. Samples in hand will be held in cold storage pending our ability to staff this program.

In the meantime, the Bee Informed Partnership offers a paid service for analyzing colony loss samples:
<https://beeinformed.org/programs/emergency-response-kits-2/>.

We are extremely sorry for this disruption and look forward to continuing this program as part of USDA-ARS efforts to help beekeepers. Please contact us regarding urgent needs.

Jay Evans, Research Leader
USDA-ARS Bee Research Laboratory
Beltsville, MD 20705

phone: (301) 504-5143
jay.evans@ars.usda.gov



Bee Curious

Bee Behavior - a learned Instinct

By: Tom Coudron

Honey bees demonstrate fixed patterns of complex behavior in response to stimuli in the environment. We call that an instinctive response - performed without any prior experience. The honey bee dance is an example. Instinct is an expression of a natural, inherent biological factor. It does not have to be learned by an individual because it is acquired from previous generations. The instructions for this "hard-wired" behavior lie in the DNA (the genetics) of the individual which it acquired from its parents. The forming of new DNA sequences that occurs during reproduction is thought to be the mechanism for generating genetic change. Natural selection from within a population is thought to be the mechanism by which beneficial instinctive behavioral changes are passed on and other instinctive behavioral changes are eliminated from the species. Beyond that, little is known about how instincts are acquired.

Additionally, honey bees are able to gain a behavior in response to their own experiences. We call that a learned response - a new behavior that was not acquired from previous generations. An example of a learned response is a honey bee going to a certain color of flower because nectar was found associated with that color during a previous flight.

It has long been thought that learned behavior was not passed on to the next generation; that learned behavior was separate from instinct. However, that dogma is now being challenged. Recently, two U.S.A. researchers (Gene Robinson and Andrew Barron) describe how bee instincts could have evolved from learning experienced by ancestors. Regardless of how simple that is to say, the novelty of bridging learning and instinct has earned the authors a publication in a prestigious scientific journal (*Science*: vol 356, pp. 26-27, 2017).

How could this be, and why does it matter?

Recently researchers have discovered that DNA can undergo fine adjustments during the life of the organism (think of this as a dimmer switch on a light). These adjustments don't change the DNA sequence (hence the genetics remains the same) but they profoundly affect how the DNA is interpreted during the life of the organism. (Researchers refer to this as the way DNA is expressed.) The scientific community has named the phenomena of fine adjustments to DNA as "epigenetics".

You might already see where this is going. The fine adjustments are influenced by current experiences (the environment in which the organism lives compared to ancestral genetics) and are consequently thought to be related to learning. For example, when a bee

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experiences fear it causes a fine adjustment to their DNA that help them remember what caused the fear; hence they learned. However, researchers now know that memory uses some of the same processes used by instinctive responses. Hence, Robinson and Brown propose that learned behavior becomes an instinct by decreasing the dependence on external stimuli in favor of internal structure of the DNA, thereby creating a pathway for learned behavior in one generation to be passed on to the next generation. Voilà! New instincts emerge through genetic changes that act on learned behavioral responses. Ahhh - granted, all the details of this phenomena (indeed, most of the details) are not fully understood, but the concept looks promising.

Why does this matter? Conceptualizing a model of behavior that unifies instinct and learning will undoubtedly lead to new thinking, research and understanding. The understanding part will likely include an elevated awareness of how the activities of beekeepers influence, not only their colonies, but also future generations of honey bees. Let's revisit the example of fear. Differences in the instinctive aggression levels in honey bees has recently been attributed to changes in gene expression within the brain of the bee when threatened. (Notice - that statement bridged instinct and learning.) Therefore, it may be possible for bees that learn to associate fear with a beekeeper to transmit this bias to their offspring. That raises many questions. For example - when beekeepers repeatedly illicit a threatened response in their hives, are they favoring the generation of more aggressive bees in the future? Do beekeepers

who seldom intervene in their hives generate more gentle bees?

I bet you have already thought of several other scenarios you would like researchers to investigate!



**HONEY BEE
HEALTH
COALITION**

Honey Bee Health Coalition

The Honey Bee Health Coalition has a great deal of information on their website and it is worth checking out.

Their Varroa Bee Club Program includes a great and free "evening program" that accompanies its [Tools for Varroa Management Guide](#). The program, intended for a bee club or association, walks beekeepers through the Coalition's Varroa mite resources.

Information on the program can be found at: <http://honeybeehealthcoalition.org/varroa-bee-club-program/>





MSBA Membership

Membership dues remain at \$10 per individual. You may renew your membership by going to the MSBA web site and utilizing PayPal or mail your check to me with your first and last names, address, telephone number, and email address. I gladly accept batch memberships if given the information on a typewritten list and either a check from the local club's treasurer or secretary.

With the change of the web site some folks have renewed well in advance of their membership expiration. You should now receive notice the month preceding your membership expiration. While the web site is going through growth spurts please contact me if you have questions regarding your membership. Some of you have paid until 2019! Thank you for supporting MSBA!

Wanda Johnston, MSBA Membership
401 NW Heady Avenue
Ferrelview, MO 64163

<mailto:bees@kc.rr.com>

Missouri Honey Youth Ambassador and Chair

The Missouri State Beekeepers Association (MSBA) is looking for a volunteer to lead a youth ambassador effort in Missouri. The Ambassador shall act as an official spokesperson for MSBA in a year-round (part time) public relations capacity while earning a financial scholarship and learning communication skills.

The Chair will organize participation at events and be responsible for the youth (working with their parents/guardian) and MSBA. If this is of interest to you, please contact Clayton Lee, President (email: leeland55@gmail.com or telephone: (573) 864-5172).

Happy Anniversary Ron and Dolores Vivian!!

Ron and Dolores had their 55th wedding anniversary in April. Ron and Dolores spent countless hours working on MSBA activities. Ron was the MSBA Treasurer for nearly 25 years and Dolores was the Auxiliary Chair when that was in effect. Both put many hours in at the Missouri State Fair. Congratulations again for 55 years of marriage!



Find us on Facebook:

<https://www.facebook.com/groups/msbainfo>



Southeast Missouri Beekeeper “Black Jar” Recognition

Stephanie Brewer, a beekeeper from Perryville, Missouri was recently honored by the Center for Honeybee Research for the quality of honey her bees produced last year. Stephanie won a blue ribbon and a nice monetary prize for her submission in a Black Jar honey contest.

The term “black jar” signifies the judging is only based on taste, with no other qualities taken into consideration. Stephanie’s honey was rated as truly exceptional and she was only one of three beekeepers recognized for the entire “Central” division of the competition which encompasses Arkansas, Missouri, Kansas, Colorado, Wyoming, the Dakotas, Iowa, Indiana, Minnesota, Michigan, Wisconsin, Ohio and Illinois.

Stephanie has been keeping bees for several years and is a very active member of the Parkland Beekeepers Association.

The annual contest sponsored by the Center for Honeybee research is a fundraiser which helps support the organization’s mission of honey bee research as well as promoting awareness of the value of the honey bee and other pollinators.

More information about the center can be found at www.chbr.org.

Early Reports of Small Hive Beetle Woes for Second Year

As many Missouri beekeepers are well aware, 2016 marked the year when small hive beetles (SHB) went from a manageable nuisance to a real problem. It is believed the increase in beetle population was due, at least in part, to the excess rains the state received. If this spring is any indication, we are well on our way to another rainy season.

Beekeepers do not have to remain defenseless against the SHB. There are a number of things you can do to keep these pests in check.

Honey bees do best defending against SHBs when they don't have too large of an area to defend. Make sure your hives are proportionate in size to the number of bees occupying them. Strong hives are the best defense against the SHB.

Keeping hives in sunny areas will discourage SHBs from attacking your hives too. The beetles prefer hives in cool, shady areas.

Trapping and screened bottom boards (SBB) with oil trays can help fight SHBs. Beetles, as well as varroa mites, fall through the SBB and die in the oil. There are traps available for both hive entrances and in the hive.

Directory of Officers

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Southwest Region Director - *vacant*

Queen/Ambassador Chair - *vacant*

Newsletter Editor - *vacant*

Local Beekeeping Associations in Missouri

1 Beekeepers Association of the Ozarks

4th Tuesday of each month, 6-9 p.m.
Seminole Baptist Church, 4221 S. National Ave.
Springfield MO 65810 Jeffrey Maddox, President
maddox65804@yahoo.com www.ozarksbeekeepers.org

2 Boone Regional Beekeepers Association

3rd Sunday of month, 3:00 p.m., Columbia Insurance
Group, 2102 Whitegate Dr. (back door), Columbia
President Jim Duever, 573-254-3373
www.boonebees.org

3 Busy Bee Club

4th Tuesday of each month, 7:00 p.m., Cedar County
Health Center, Owens Mill Road, Stockton
Neal Lee 417-276-3090, Neil Brunner 314-276-4252

4 Eastern Missouri Beekeepers Association

2nd Wednesday of each month, 7:00 p.m., location
changes. Bob Sears, President 314-479-9517
www.easternmobeekers.com

5 Golden Valley Beekeepers

2nd Monday of each month, 7:00 - 8:30 p.m.
Golden Corral, Clinton MO. Tom McCormick, President
tomm@goldenvalleybeekeepers.com
www.goldenvalleybeekeepers.com

6 Jackson Area Beekeepers

4th Tuesday of each month, 7:00 p.m.
First Presb. of Jackson, 206 E. Washington
Contact Grant Gillard, gillard5@charter.net, 573-243-
6568

7 Jefferson County Beekeepers Association

2nd Tuesday of each month, 7:30 p.m., Hwy B & 21
Jefferson County Extension Center, Hillsboro
Contact Marvin Hook 636-274-1759

8 Joplin Area Beekeepers Association

Last Tue. of each month, 7 pm, SM Bank Community
Building (7th and Duquesne Rd), Joplin
Contact Dale Foley 417-850-0285

9 Mid Missouri Beekeepers

3rd Sunday, 2 pm, Old Train Depot, St. James.
Contact Don Moore, dlmoore2@centurytel.net
573-265-8706

10 Midwestern Beekeepers Association

Most meetings: Fellowship Hall at Graceway, 5460 Blue
Ridge Cutoff, Kansas City, MO 64133
midwesternbeekeepers.org
President Bob Williams beltonbee@gmail.com

11 Mississippi Valley Beekeepers Association

Last Tuesday of Month in Quincy, IL
Contact Bernie Andrew 217-938-4975

12 Missouri Valley Beekeepers Association

3rd Monday, 7pm, Union, location varies
President Calvin Brandt cvbrandt@landolakes.com

13 Parkland Beekeepers

3rd Tuesday of month, 7pm, North College Center,
Mineral Area College, Park Hills. Pres. Ray Politte
573-631-8236 PBA_President@mineralarea.edu
<http://www.parklandbeekeepersassociation.org/>

14 Pomme de Terre Beekeepers

2nd Thursday 7 pm, Missouri Extension Office,
Hermitage
Contact Rebekah Huddleston Rebekah_421@yahoo.com

15 SEMO Honey Producers

2nd Thursday 6:30pm, Zion Lutheran Church, 450 N.
Main St., Poplar Bluff. Contact Ray Batton, 573-785-
1980,
573-778-6475 cell or sbatton6@gmail.com

16 South Central Missouri Beekeepers Association

1st Friday of month, Howell Electric Coop, West Plains
Monty Wiens, President 417 257-3994

17 Southern MO Beekeepers of Monett "MOBees")

3rd Tuesday of each month, 7:00 p.m.
United Methodist Church, Hwy 37 NW of Monett
John Schmidt, President 417-830-9141

18 Southwest Missouri Beekeepers Assn. of Neosho

1st Tuesday of month, Neosho High School FFA Bldg
Contact Thelma Ross 417-472-3504 rtross@jscomm.net

19 Three Rivers Beekeepers

3rd Monday, 7pm, University of Missouri Extension,
260 Brown Rd, St. Peters, info@threeriversbeekeepers.com
President Dwain Jansen 314-910-1251

20 Northwest Missouri Bee Busters

2nd Monday of month, location varies
nwmbeebusters.blogspot.com
beebusters2012@gmail.com

Local Beekeeping Associations in Missouri

21 Lake of the Ozarks Beekeepers

3rd Saturday of month, 1:00 p.m.
Square Deals Ice Cream Shop, Versailles
Contact Garrett Blackwell 573-374-7402

22 Northeast Missouri Beekeepers Association

1st Friday of month, 7 pm, Clark County Courthouse,
Lower level, Kahoka (location may vary)
(3 miles south of Wayland) Contact Randy Ewart
573-248-5561 rewart@centurytel.net

23 Gasconade Region Beekeepers

2nd Tuesday 7:00, First State Comm. Bank, Owensville
Pres. Rodney Angell (573) 259-5811 bee143@fi
dnet.com
gasconaderegionbeekeepers@hotmail.com

24 St. Louis Beekeepers

4th Tuesday 6:30, Schlafly Bottleworks
contact@saintlouisbeekeepers.com
www.saintlouisbeekeepers.com

25 Western Missouri Beekeepers

2nd Tuesday 6:30, Moor-View Community Room,
Nevada
Caroline Phillips, President 417-321-3587
bcphillips81@gmail.com

26 Meramec Valley Beekeepers

First Sunday 2 pm, Peace Lutheran Church in Sullivan
Contact Sam Elia 573-732-5597 samnora1@gmail.com,
or
Laurie Rose at laurierose1219@yahoo.com

27 Quad County Beekeepers

1st Tuesday, 7:00 pm, Missouri Extension Office, Troy
President Eric Reid quadcountybeekeepers.com

28 North Central MO Beekeepers Association

1st Monday, Macon High School, Macon, 7:00 pm
Contact Bill George (660) 214-0132
georges@chbeekeeping.com www.ncmobees.org

29 Bees Alive

(Springfield area) www.beesaliveclub.org
1st Thursday, 7-9pm, Central Bank of the Ozarks, 502 W.
Mt. Vernon St., Nixa MO 65714
Dan Barton, dannyohboy@hotmail.com

30 Wright County Beekeepers

2nd Thursday, Laclede Electric building, Hartville, 7 pm
Rick Bledsoe, Contact 417-741-7466
wrightcountybeekeepers@gmail.com

31 Rolla Bee Club

4th Sunday 2pm, Brownwood Estates Clubhouse, 1341
California, Rolla
Contact David Draker (573) 578-0561
rollabees@gmail.com www.rollabeeclub.com

32 Swarm Chasers

% MO Dept. of Conservation,
701 McCarthy Dr., St. Joseph
Contact Jason Seetin
swarmchasers@gmail.com

33 Northland Beekeepers

3rd Tuesday at 7pm, Smithville Library-Highway 169
Contact: Clayton Lee at leeland55@gmail.com or
573-864-5172

34 Mark Twain Beekeepers (Dent County)

3rd Monday, 6-8 p.m. No dues. Contact for meeting
locations.
Contacts: Terry Phelps 573-729-3333
Gregg Tivnan (573) 689-2254 or
greggtivnan@yahoo.com

35 West Central Beekeeping Association

Second Wednesday, 6:30 pm
State Fair Community College, Potter-Ewing Ag Ctr, Sedalia
Contact Mike Conroy (573) 301-1394
hunnyhillfarms@gmail.com

36 West Plains Bee Group

3rd Thursday, 6pm Hirsch Feed & Farm Supply,
789 Worley Dr., West Plains
Call Carl Fry 417-247-0708 or Dan Cropper 417-372-
2602

37 Greenhills Bee Club

4th Monday, 7pm, American Legion Hall in Braymer
J.R. Hess. 660-233-9577 or jrhess11@gmail.com

38 Dexter Bee Club

1st Tuesday, 6pm, Scott Laden's house
9265 County Road 627, Dexter
Contact Cory Stevens at corystevens00@yahoo.com
or 573-225-6935

39 Iberia Area Beekeepers

3rd Tuesday, 6:30pm. Iberia Library
Contact: Ray Shadow, 573-286-5289 or
trynbeez@outlook.com, [facebook.com/trynbeez/](https://www.facebook.com/trynbeez/)