Bee friendly

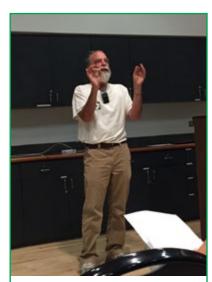
A Newsletter of the New Mexico Beekeepers Association

www.nmbeekeepers.org

Summer 2022

Summer Conference in Santa Fe

"Secrets of Successful Beekeeping in Challenging Environments"



Jose Villa Cottonwood Creek Apiaries Crestone, CO

t's really hard to imagine a better theme for these times. Jose Villa and John Gagne are back with us to speak and lead the discussion. The 2022 meeting this summer is being held Saturday, Aug. 27 in-person at the Institute of American Indian Arts (IAIA) in Santa Fe. The day will feature a panel of beekeepers from different parts of the state revealing their "secrets" of successful beekeeping (to date, as yet unconfirmed, potential panelists are Amy Owen, Kate Whealen, Scott Anderson, Pancho Garcia, and Ryan Miller. The Institute has hives on its campus, so the hope is to devote part of the day in the field for demos of mite washes, queen marking, or comb reading.



John Gagne San Juan Apiaries Santa Fe, NM

Be sure to become a member if you aren't already. Your membership includes admission to conferences, newsletters, access to past recorded conference talks, and more. Go to www. nmbeekeepers.org to join! Look for more information on the conference as plans unfold in the next weeks on social media FaceBook and Instagram. Another online auction is also in the works.

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President's Report

By Robert Reneau, NMBKA president



s I start my final year on the board as the new NMBKA

President, I want to thank the membership and board for their confidence in me to lead this excellent organization.

Thank you Steve Black for serving as president during

the COVID years and leaving NMBKA in excellent shape.

It's great to have four new board members with new ideas and a lot of energy. All board members chair a committee committed to better serve beekeepers throughout New Mexico. Much of our focus this year will be to reach out to new and experienced beekeepers in all parts of the state as well as those residing in Albuquerque and Santa Fe. Volunteers are encouraged and needed on every committee. Just go to our website and fill out the volunteer information. Here is a little information about the committees and their activity.

Christa Coggins, Member-at-large, and Anita
Feil, Secretary, are co-chairs of the Club Outreach
Committee tasked to expand outreach to local beekeeper
organizations. They plan also to assist in developing
and increasing the number of local grassroots beekeeper
clubs and improve our affiliate program that was adopted
in 2019. As part of their efforts, NMBKA and ABQ
Beeks teamed up to provide a highly successful exhibit
at an Albuquerque Isotopes baseball game in May.
Matt Strong, the leader of ABQ Beeks, assisted and we
expect to see that club expanding to serve the needs of
Albuquerque area beekeepers. A number of Certified
Beekeeper students also assisted the New Mexico Farm
and Livestock Bureau at the same game. I look forward to
future events with clubs in all areas of the state.

Amy Owen is chairing a committee to adopt a NMBKA Pollinator Protection Plan for NMBKA and to encourage applicators and property owners, as well as local and state organizations, to adopt similar plans. The NMBKA Pollinator Protection Plan will be announced during June, National Pollinator Month.

Kurt Ferreira, Conference Committee chair, is working on the first in-person meeting after the COVID pandemic. Kurt and his committee members have great program for the Summer Conference in Santa Fe on August 27th. Mark your calendar, you do not want to miss this one!

Jade McLellan, Education Committee, is developing educational programs and tools to help educate the many new beekeepers around the state and encourage them to enroll in the NMBKA Certified Beekeeper Program. Jade is also looking to develop a NMBKA 4-H/FFA scholarship program within the state.

Melanie Kirby, Vice President and chair of the Commercial Beekeeper Outreach Committee, is working to increase our commercial and sideline beekeeper membership as well as chairing the Social Media Committee.

Steve Black, immediate past NMBKA President, is chairing the Certified Beekeeper Program and taking a leadership role with the Sangre de Cristo Beekeepers in Santa Fe. Steve also serves on several committees.

Kathy Grassel continues to chair the Newsletter Committee. She serves as the editor of our first-class newsletter as well as serving on several committees.

Courtney Bradley, Treasurer and Finance Committee chair, is searching for insurance coverage for our varied activities and coverage for clubs that want to develop an affiliate relationship with NMBKA.

As your president, I have been networking with other state beekeeper organizations. The presidents and leadership of state organizations in Texas, Ohio and Georgia have been helpful in sharing how they successfully reach out and serve beekeepers in their states. I was fortunate to attend the Buzzfest in Navasoto, TX and spend time with leadership from TBA and Texas Friendly Beekeepers. I have learned from them and excited to use that knowledge to grow the influence of NMBKA in New Mexico.

2022 promises to be a great year for beekeepers in New Mexico!

Certified Beekeeper Classes (aka CBeeks)

By Steve Black, CBeeks Director

ur 2022 Certified Beekeeping classes began in late March and early April and are off to a strong start. We have 31 Level I (First Year) students and 17 Level II (Second Year) students all of whom seem excited to begin or extend their knowledge of bees and the plants bees love.

After a year in off in 2020 due to COVID and

a largely remote learning 2021 due to continued COVID,



it is great to have the ability for students to meet together at the Open Space Visitor Center where class instruction and hive inspections take place.

Thanks to a great program and our amazing instructors, the program typically fills to capacity each year. Believe it or not, a number of prospective students have already signed up to begin their

formal beekeeping education in the spring of 2023.

Around New Mexico: Club News

Sangre de Cristo by Steve Black

After a number of virtual meetings over the past two years, we held our first in-person meeting in May since the arrival of COVID in 2020. Kate Whealen presented information on spring hive management and queen replacement.

Each month, our meetings will typically offer a seasonally relevant presentation followed by a general question and answer session, which has been particularly helpful for newbees (beekeepers in their first few years of beekeeping). It is great to get back to in-person meetings to do what we beekeepers love to do....talk bees!!

In addition to our new meeting location, we plan to continue to include a Zoom element for those northern New Mexico beekeepers who are unable to attend in person.

Our meetings are held the second Tuesday of every month, starting at 6:30 at the Unitarian Universalist Church located at 107 W Barcelona Rd, in Santa Fe.

ABQ Beeks by Kathy Grassel

Thanks to Matt Strong, beekeeper and proprietor of the not-for-profit Bear Canyon Honey Co., ABQ Beeks meetings are once again in-person for Albuquerque and environs beekeepers. The first meeting in April was widely attended by beekeepers from newbees to decades-long experienced, hungry to meet each other, ask questions and swap stories. May's meeting featured a talk by Amy Owen of Desert Hives LLC about spring management.

Many thanks go out to Randy Swartz, Ashley Veihl, and Steve Black for keeping ABQ Beeks alive via Zoom during Covid. Meetings were wellattended and some sessions are recorded and posted on the website (abqbeeks.ning.com). Recently Steve recruited Matt Strong for the huge task of taking over for in-person meetings.

Meetings are held the third Tuesday of the month starting at 6:30 at Mountainside Church 12300 Indian School Rd NE, Albuquerque.

Chasing the Wild Bee Interview with Olivia Messinger Carril

By Anita Amstutz, Think Like a Bee

ecently I sat down for an interview Dr. Olivia Carril, author of the beautiful compendium, The Bees in Your Backyard: A Field Guide To North America's Bees.

I was in for a treat. Dr. Carril's delight in wild bees makes her a dynamic educator. Her joy of talking about bees is contagious!

Olivia lives in Santa Fe with her family and is a national treasure with her depth and breadth of knowledge about wild bees, having studied and done field research for more than 25 years.

Her first encounter with wild bees came as a college student. Growing up in a family with parents who valued being outside, she spent many happy summer days camping, exploring, looking for fossils, and catching lizards. Biology looked like a career where she could be paid for being in nature and doing what she loved, so off to school she went. Olivia graduated with a BS and MSc from Utah State University and a PhD from Southern Illinois University in Carbondale.

Initially she thought she'd follow the track of flowering plants, until she landed a job in a lab where her job was to study bee specimens already organized with their pins in drawers—from Poland to Zimbabwe to North America. Dr. Terry Griswold, esteemed research entomologist, noticed her fascination and enthusiasm, landing Olivia her first project in central/western California for one summer at Pinnacle National Park. There, Olivia documented bees landing on flowers and the unique symbiotic relationship between the two. Ultimately this mutual attraction of bees and flowers inspired curiosity as she noticed patterns of how bees were drawn to certain plants at specific times of day, also noting the importance of colors, scents, and shapes of flowers.

Olivia found that she loved to organize, explore and stalk the wild bee. She and her family settled in the high deserts of the Southwest so she could research her specialty in bees and their co-evolved landscapes.

Though she is focused on wild bees, she is not opposed to domestic honey bees. As she put it:

"Domestic bees are important for human well-being and have their place just like milk in our refrigerator, chicken on our dinner plates, and our dogs and cats at home whose company we enjoy!"

For her, talking about wild bees and domestic bees are like talking about the chicken and the egg. They require a different way of appreciating.

Here are a few questions from our conversation.

What is unique about New Mexico's wild bee coevolution with their landscape?

North America has more than 4,000 varieties of wild bees, with *at least 1,000 of them indigenous to New Mexico!* This is what makes New Mexico such a fine place to study them.

Because we have many bioregions, including some warmer southern climes that have longer flowering seasons, it's a great place to Bee! Wild bees like warm soil and dry climates so their ground nests don't get moldy. These micro climates, which have evolved different niches and flower species, have in return created adaptations of bee body types and antennae. Thus, wild bees have evolved in unique ways, making them important, whether they add value to human economies or not.

For instance, Dr. Carril posed the question, "Cuckoo bees steal other wild bee nests and lay their eggs. Are they valuable?" We both agreed their value is inherent for the ecosystems they inhabit, whether they contribute to the human endeavor or not.

Surprisingly, in the desert wild bees are *most* critical for pollination of flowers and wild landscapes that have co-evolved with them. Dr. Carril reminds us that in the desert, it's the wild bees that are most responsible for pollination. For instance, two Mason bees pollinate more efficiently than 100 honeybee workers! And think about

this...they are independent, free agents! No need for management.

What is the compelling reason to learn about wild bees rather than managed bees? Why is it relevant?

For this question, Dr. Carril began with "There is a bee for everyday!" Her compelling reason is to evoke wonder for the world we live in—awakening people's imaginations and curiosity that then leads them to bigger questions for how they think differently about the world. Always, Olivia wants to not only entertain but call people into their backyards to identify the often invisible bees with which we live. She wants her audience to see relationships between flowers and bees. As she says, "Once you see the bee on the flower, you have a tangible manifestation of an ecological relationship; 90% of how we see a bee is that she has slowed down enough to land on a flower. Then there is no abstraction at all! The more we see this, the more we recognize that relationships are happening all around us in our ecosystem!"

Next she took me on a magical whirlwind tour of five of her favorite, cutest superstar bees. She began by stating, "Wild bees are like the most chill person you've ever met. They are resilient, able to adapt and roll with the punches. Invasive weeds? No problem! Disturbed ground, sure! I can make a nest there." This immediately endeared me to these fascinating creatures from the winged queendom.



The first bee she introduced to me to was the family Diadasia with 45 different species in this genus. Dr. Carril called them the "flying teddy bears." She showed me a blond fuzzy bee

body with cathedral gossamer wings. Having evolved as specialists on the native plant species globe mallow, you can peel back their petals at dusk and see the males sleeping in the orange flowers.



Another favorite is from the family of Halictidae, also known as Sweat Bees. These striking little bees are green/gold with irridescent metallic bodies. One of their family members may lick your sweat, but

most won't. They are generalists collecting pollen from invasive to native plants.



Then there are the Mason Bees, from the Megachilidae family, the genus Osmia. They have large eyes, thick heads with

a muscle for their strong mandibles to manipulate mud in building their nests. They have beautiful aquamarine metallic bodies.



The honeybeesized Mining bees, (family Andrenidae) are diggers—solitary ground nesters with stout furry bodies. They are specialists in orchard crops, plants in the pea family,

sunflowers, penstemon and astragalus.



Finally, my favorite, the genus, Perdita, fairy bees, which are specialists on creosote. Less than a millimeter in size, they are so tiny you can easily miss them.

Challenges for Wild Bees

In the end, Olivia left me with more questions about wild bees and a desire to learn more.

Can wild bees be fascinating and also valuable for their intrinsic worth?

Are bees valuable for me?

How does it make life better for humans?

Is conservation of their habitat for sustainable use? Or preservation for preservation's sake?

In terms of the challenges, she said, "We don't know enough to know how our bees are doing." Which is why she is passionate about funding her research and educating the public. Dr. Carril was willing to take off her scientist hat and talk about some of the challenges to wild bees, one of the biggest being their elusive nature. They are good at taking care of themselves. For instance:

"Putting a parking lot where cactus and creosote used to be is bad for bees but How Bad? We need quantities and numbers. We need multiple years of data to really get at the answer."

In the end, she continued, wild bees will just move if their habitat is destroyed and it will be difficult to stalk their population somewhere else. "They are like seeds in that the baby bees can wait in the ground where their nest is located until it's time for them to be released."

Olivia said that one of her biggest questions in New Mexico is not about pesticides and agriculture changes, but placement of honey bees that compete in areas of native bees. Also, cattle grazing disturbance of wild lands. and uncharacteristic burns and habitat fragmentation from oil and gas development. She is still gathering data, using standardized plots

where she collects every month of the flowering season at the very same time—whether it's the oil fields of Roswell and Carlsbad or NE New Mexico.

Conclusion

One hopeful thing is that wild bees have been adapting to the desert for thousands of years. Mega droughts are nothing new. Wildfires have come and gone, and the rebounding of flowers and dead wood can actually increase the population of wood-nesting bees after burns.

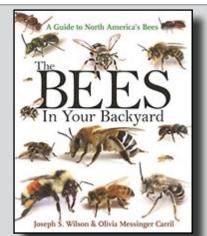
Do the wild bees adapt? Do new lineages take their place? Do they evolve with new plants? For instance, bumblebees are definitely in decline, but perhaps they are exiting at a time of planetary evolvement—having been the pioneer species and conquerers of new areas for millions of years.

In the end, the wonderful part is that humans are waking up to the fascinating world of wild bees around us and how we can live in right relationship with not only the bees but their habitat. We are learning how the whole web of life is woven together in a seamless whole and when one little piece of it changes or breaks down and falls apart due to human activity, then it can impacts the whole.

The good news is that more and more people are stepping up to speak for the bees!

Thank you Dr. Olivia Carril, for your dedication to chasing the wild bee and taking time to share your love of bees with us!





Out of the net & into the book: Olivia Carril with kids Ellie and Katie at the RG Gorge. The book she co-authored with Joe Wilson.

How to Bee in a Changing World

By Jade McLellan, Sustainability Biologist

ollinators, it goes without saying, are crucial to the future of global food systems, human and non-human alike. Although many of us are familiar with the threats posed by pesticides, pathogens, and habitat loss, the fact is we're living in a shifting world and climate change is yet another threat to both honey bees and native bees. But what does this mean?

How does climate change impact bees?

- Warmer temperatures: ecosystems are shifting, plant communities are being altered
- Unpredictable precipitation: less annual rain & dry winters, resulting in fewer flowers
- Earlier leaf-out: flowers die in cold snaps, or bloom before native bees are ready to hatch
- Longer, hotter summers: longer growing season, but also more frequent & hotter fires

In order to foster a resilient landscape for the future, we need to support complex networks of interactions between species—which means treating honey bees more like livestock and less like wild animals. It's easy to forget that beekeeping was brought to the Americas by the Spanish during the 1500s; although honey bees can supplement ecological services, honey bees benefit people, but not necessarily ecosystems. The truth is that these relationships are incredibly complex and the real problems occur when they fall out of balance.

New Mexico has over 1,000 native bee species, one of the highest levels of bee biodiversity in the world! How do their needs differ from those honey bees?

- Most are specialists, visiting just a few kinds of plants
 - They have more specialized diets & are less strong fliers, with fewer options when native plants are unavailable or competition is high
 - Honey bees are shown to <u>preferentially</u> <u>pollinate weedy/invasive species</u> over native plants, reducing native plant numbers & changing local plant communities
- Most native bees are solitary, raising young by themselves
 - Native bees are more susceptible to pesticides and herbicides, as they don't get the strong buffering effect of a large colony
- Range from smaller than a grain of rice to bigger than my thumb, but most are much smaller than honey bees
 - Studies have shown that over a single season,
 40 hives of honey bees collect the pollen equivalent of 4 million wild bees, using double the resources (or more)

This results in fewer numbers of wild bees, *and* fewer wild species.

What can we do as beekeepers? Conscientious Management

- <u>Downsize your apiaries</u> consider having even one less hive. Research shows that the greatest impacts on wild bees occur within 1200m-1km from hives, so density matters
- Mindful placement as much as possible, hives should not be placed in protected or uncultivated (wild) spaces
- Ensure adequate forage plant more than you think you need to support sustainable "grazing" (native, arid-adapted flowering plants)
- Test & Treat monitor your hives year-round for signs of disease, as honey bees spread deformed wing virus, black queen cell virus, Nosema, Crithidia, & other pathogens to wild bees. These are invasive diseases & parasites, so please treat to reduce the spread!

Vote for the conservation of wild bee habitat and against the use of neonicotinoids.

Write to your representatives on the critical need to expand and protect natural areas, and to minimize the detrimental effects of agricultural intensification.

Start documenting your wild bees.

Try to snap a picture every time you see a native bee. Apps like <u>iNaturalist</u> provide valuable data used by scientists to track wildlife, so it *does* make a difference! You can also try <u>Insight</u> <u>Citizen Science</u> or <u>Beecology</u>.

Support small-scale apiaries, not industrial ones.

Honey bees are a significant component of human history, culture, and even spirituality—it can be difficult to consider the ways that our beloved bees may be harmful to their wild cousins. However, it *is* possible to opt for more balanced hive management; just as farmers can choose more sustainable farming practices, beekeepers can make choices that are better for wild pollinators (and wild spaces). We as a community have advocated long and hard for honey bees, and it is our responsibility to continue engaging in education and advocacy that prioritize the resilience of our diverse ecosystems. The fact is that our planet is rapidly shifting—but we still have the opportunity to protect pollinators and give them a fighting chance in a changing world.

Jade McLellan has a BS in Biology and Sustainability Studies, and is the Poetry Editor for the Santa Fe Literary Review. A beekeeper for the past 4 years, Jade is passionate about exploring the relationships between pollinators, place, and people. Her article first appeared in the Winter 2021 issue of Bee Friendly.

The Pollinator Garden: Not Just for Honey Bees

By Courtney Bradley, NMBKA treasurer, beekeeper, farmer

Then you hear Pollinator Garden what comes to mind first? For most people it's flowers or bees and butterflies, but is a pollinator garden really that simple? Let's dive into the ins and outs of a great pollinator garden that will have all the pollinators telling their friends where your garden is!

First, let me be clear, by pollinator I mean honey bees, native bees, butterflies, hummingbirds, moths, flies, wasps, beetles, bats and more! For the purpose of this article we will be discussing bees, butterflies and hummingbirds. So what are those species looking for in a pollinator garden?

Let's start with the butterfly. A yummy snack of nectar from a red, orange, yellow, pink or blue flower is what the butterfly prefers. She gravitates to the flat topped "cluster" flowers such as yarrow, Salvia coccinea, or the purple flowers of the butterfly bush. Butterflies like to sip nectar in the sun and rely on it to fuel their flights

throughout the day. Unlike bees, this gorgeous insect has the ability to see red; however their sense of smell is lacking, so when choosing flowers for butterflies, base your decision more on nectar production and less on aroma. Butterflies love wild flowers and it's always best to plant native; plants such as Antelope Horn Milkweed or the Joe Pye Weed are great options.

Our tiny friend, the hummingbird, would be in nectar heaven with long, tubular flowers that are shaped just perfectly for its long, thin beak. Hummingbirds prefer orange, red, violet and pink flowers such as Eastern Red Columbine, penstemon, catmint and trumpet vine and honeysuckle. Not only do hummingbirds like nectar from flowers, they also enjoy small insects like aphids, beetles and mosquitoes so they

are a great pollinator to have around. Something else to consider for the hummingbird in your pollinator garden are trees or shrubs. Those little guys need a place to build a nest so what better place than next to their very own allyou-can-eat buffet within your pollinator garden?!

Now on to my personal favorite, the bee! Did you know there are approximately 1,000 native bee species in NM? Bees see ultraviolet wavelengths so when planting for them, choose yellow, blue or purple flowers such as purple coneflowers, sunflowers or bee balm. Many flowers have what are called nectar guides that help direct a bee straight to the good stuff. Plant flowers for bees in clumps rather than singular, and spaced out so they can find them better. No two bees are alike so plant many different shaped flowers to accommodate different tongue lengths and body sizes. Selecting high pollen and nectar producing plants is ideal for the bee and it's even better if it's a native plant such as showy goldenrod, Geyer's aster, or rubber rabbitbrush. Keep in mind most species of bees don't live in hives so ground cover and shrubs are good places for them to hide away in your garden.

It's important to avoid hybridized flowers when planting your garden. Although they can be quite lovely to look at and be extremely hearty, many of them have minimal pollen and nectar production and are useless



to our pollinator friends. Your first choice should always be native trees, shrubs and flowers. These plants are better conditioned to our weather and growing seasons and the native bees and butterflies love them. Think variety when it comes to size, shape and color, and



plant in clusters so the tiny flying miracle workers can find them easily. Also, don't forget to plant for every season. Do some research to see what blooms in spring. summer, and fall so that bees, butterflies and hummingbirds have a feast for all the seasons. Remember that we have significant winds in New Mexico so trees



and shrubs to serve as wind blocks are a good idea. And don't forget a water source. Pollinators love moving water so a homemade tiny fountain or stream is ideal but don't let them drown; supply plenty of life rafts such as pebbles,

marbles or even miniature life rafts!

Planting a pollinator garden is so beneficial to all of our little bug pals but it is also a fun, safe space for us humans to go and enjoy watching all the sights as the buzzing of the bees, the speedy flying of the hummingbirds, and the colorful dance of the butterflies takes place all around us!

Roses for the New Mexico Garden

By Allison Moore, Landscape Architect



hen one thinks of gardening in the southwest and gardening for pollinators, roses may not be the first plant that comes to mind, but they are definitely worth considering in a New Mexico garden. There are more than 100 species of roses and thousands of hybrids so it is easy to be intimidated by such a large family of plants, but for this column I will focus on three that I believe are beautiful and beneficial additions to any garden. These are: Rosa rugosa, Rugosa rose; Rosa woodsi, Wood's rose; and Rosa glauca, Red leaf rose.

They are all slightly different in flower size and color but have many similarities, which is also what makes them attractive to bees, other pollinators, and wildlife in general. They all bloom in varying shades of pink, are fragrant (even more so as the temperatures rise), and have an open

flower shape with few petals and prominent anthers and stamen. These roses are not the stereotypical tight buds of red that are a familiar sight on Valentine's Day but more of an older, old fashion or wild type of rose that grows in an informal shrub form with an open flower form.

The wide face of the flower allows for excellent access to the pollen and you will often see pollinators such as bumble bees grabbing the anthers of the rose flower and vibrating their thorax against them releasing the pollen. These roses are tough, do not require pruning except for the removal of dead canes and overall shaping, are not susceptible to most hungry insects, and prefer well-draining soil and full sun to semi-shade. They typically bloom in late spring and early summer with sporadic flowers throughout the summer. Colorful rose hips are produced in the fall providing food for wildlife and their dense or thicket-like growing habits provide forage all year round. The rose hips are edible for humans, too, containing high amounts of Vitamin C and can be used in teas, tonics and salves.

Rosa rugosa, Rugosa rose

The Rugosa rose is native to northern China, Korea, Japan, and eastern Russia, often growing along the ocean shore due to its ability to withstand wind, sandy and generally all poor soils, salt, and drought. On the east coast of the United States and in areas that receive more moisture, the Rugosa rose could be considered invasive but typically not an issue here where the dry southwest conditions tend to keep this shrub in one place. They will put out suckers and these can easily be cut back or allowed to spread. Rugosa roses tend to grow into a handsome sprawling form approximately 4-5 feet tall x 4-5 feet wide with rich green foliage that has a wrinkled appearance and dark pink flowers with yellow centers. Bumblebees frequent these flowers and often appear to be wrestling with the anther and stamens. Because of its reliable hardiness and growth, there are many varieties now available including ones with double flowers, but I recommend sticking to the original single flower form. In the fall, Rugosa roses produce large rose hips (almost the size of small crabapples), but watch out for the thorns and the overall branching which tends to be very prickly.



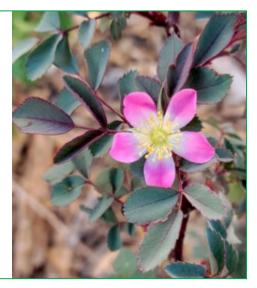
Rosa woodsi, Woods' rose

Woods' rose is a rose native to the western states and can often be found while hiking in the mountains of New Mexico along a stream or at the edge of a wooded area. Woods' rose naturally grows in thickets so it is a good idea to place one or more Woods' rose in the back of your garden where it can grow uninhibited and provide a wonderful backdrop for other mid to late summer flowering plants and shrubs. Woods' rose has small green leaves and greenish red stems and grows to approximately 5-6 feet x 5-6 feet wide. The delicate pink flowers appear in late spring and are intensely fragrant, attracting some of the smaller native bees. Small teardrop shaped rose hips follow in the fall. Woods rose can tolerant both dry and moist soil conditions but will be happiest with some moisture during especially hot conditions or at least a little shade.



Rosa glauca, Red leaf rose

The Red leaf rose offers more than just sweet single pink and white flowers; the foliage is extremely striking with a strong reddish purple color and dark red stems. The foliage and stems contrast beautifully with the silver foliage of Sage or Chamisa creating a plant combination that has four season interest and appeal. Native to the mountains of central and southern Europe; the Red leaf rose has proven to be hardy and drought resistant especially in areas with some elevation in New Mexico. Red leaf rose grows as a dense spreading shrub approximately 5-6 feet tall x 5-6 feet wide so be sure to give it plenty of room in the landscape and consider highlighting it as a specimen plant or focal point. Shiny reddish orange hips appear in the fall and persist throughout the winter.



Good plant companions for all three roses include a mix of forms and foliage that enhance the colors and textures of each type of rose. Rugosa roses tend to have a lot of mass, so adding an upright ornamental grass such as Switchgrass (Panicum virgatum) adds visual contrast and breaks up the density while low growing groundcovers like Flowering Catmint (Nepeta species) and Yarrow (Achillea millefolium) provide a living carpet underneath. Woods' rose maintains a wild quality in the landscape and that mixes well with wildflowers such as purple or yellow coneflowers (Echinacea species and Rudbeckia species) and Grama grasses (Bouteloua species). The Red leaf rose pairs well with silver foliage as mentioned above including Sand Sage (Artemisia filifolia) and a shorter growing variety of Chamisa (Ericameria nauseosa) along with an evergreen backdrop of Junipers (Juniperus species) or Pinon (Pinus edulis) trees.

Sources:

Plants of the Southwest catalog, www.plantsofthesouthwest.com

Lady Bird Johnson Wildflower Center website, www.wildflower.org

www.Gardenista.com

www.Misfitanimals.com

Whichever rose you choose for your garden, the pollinators and other wildlife, as well as you, will benefit from this beautiful and hardy plant. Just remember to stop and smell... but look out for the bees!

A Beekeeper Speaks at NM Pesticide Applicators Conference

By Amy Owen, Desert Hives LLC, NMBKA Member-at-Large

s a beekeeper, I felt out of place when I walked into the New Mexico Pest Management
Association Conference. We have some similar interests; we all like to learn about insects, but our goals in our work can seem opposed. As a beekeeper, my goal is to keep honey bee colonies alive, healthy and vibrant. On the contrary, pesticide applicators try to eliminate colonies of insects that the public views as pests.

I was invited to speak on the subject of protecting bees and other pollinators from pesticides (which includes insecticides and herbicides). This is something I am passionate about, and I thought this would be a great opportunity to raise awareness about the negative effect pesticides have on bees.

Before I began my talk, I saw a man with a sign that advertised a pesticide that I would soon be talking about, IGRs, or insect growth regulators. I'd share how insect growth regulators harm bees by rendering them unable to move from one stage of their life cycle to the next, thereby causing stagnation in a colony. My anxiety level grew.

We had a short break, and then the man advertising IGRs let me know that he would be introducing me as the next speaker. I thought to myself: could this get any worse? I was about to show a slide, just feet away from his sign, talking about how harmful his product was.

He shared that the company he represents once developed miticides for beekeepers. We then had a lively chat about the use of miticides, the importance of them, and how they are often misused and consequently lose their efficacy.

Confession, as a beekeeper, I use organic miticides in my hives to keep varroa mite levels down. Varroa mites are parasitic mites that feed on a honey bee's fat stores. If mite levels in a colony aren't kept below a certain threshold, the honey bees will likely succumb to the infestation and the diseases that are vectored by the varroa mite.

As a beekeeper, I try to follow an integrated pest management (IPM) approach to control mite levels. My primary methods of control include: finding bees with genetic traits that are mite resistant, spacing hives at least 4 feet apart, keeping apiaries small, and allowing colonies to have natural brood breaks. I monitor my hive's mite levels regularly, and take notes so that I know which hives have genetics or conditions that are most conducive

to keeping mite levels below a recommended threshold. If a colony's mite level goes above this threshold, I use an organic miticide (formic or oxalic acid) to lower the mite load. If I see that I am consistently having to treat a hive, I will requeen it with a queen whose genetics are more mite resistant.

By following this IPM method of mite control, I am able to keep most colonies healthy and prevent the spread of disease. This approach also allows the bees to become more mite resistant on their own, which reduces the need for miticides.

Speaking with the pesticide applicator who introduced me helped me realize that beekeepers and pesticide applicators have some of the same goals. His company formulated a product to help bees! Many applicators strive to follow an IPM approach, in which the least invasive methods of control are used first. They also try to prevent resistance and the need to apply more and more chemicals. One pest control company will do home inspections and make recommendations that do not require spraying pesticides.

During my talk, applicators seemed genuinely interested in how pesticides affect bees, and how they can do better. One pesticide applicator explained that he found a good alternative to the neonicotinoid imidacloprid (a commonly used systemic pesticide very harmful to bees). He has been able to eliminate its use.

Like the pesticide applicators at this conference, I need to be humble and open to learning new things. Not all pesticide applicators go straight to chemical methods of control. Some strive to apply non-chemical methods to reduce populations of insects that can be harmful to human health, or that can destroy large fruit trees that are so important to our pollinators. If we take the time to learn about these non-chemical forms of control, like luring mosquitoes into a net with dry ice, we can then promote these pollinator friendly practices.

If we can build understanding between beekeepers and applicators, we can work together to formulate more pollinator friendly methods of pest control. Beekeepers need to know where pesticides are being sprayed, and applicators need to know where bees are going to nest and find resources. We need to work together to identify these points of contact. Without this knowledge, both beekeepers and applicators will fall short of maintaining and nurturing a pollinator friendly environment.

Trying Out Dr. Spivak's Propolis Idea for Honey Bee Health







arla Spivak is a honeybee researcher at the University of Minnesota in Minneapolis. Her work has covered a variety of subjects over the years including queen breeding and disease prevention and lately she has been working on the relationship of honeybees and propolis.

Propolis is simply a mixture of resins honeybees collect from a variety of plants. Resins protect these plants from diseases and pests that would otherwise harm them. Marla first became interested when she read that some properties of propolis had a positive effect on HIV. Then she attended a meeting where she learned how ants collect these resins to use in their nests.

Marla discovered that honey bees in the wild naturally 'coat' the interior of their hive with an envelope of propolis. She experimented by painting a propolis tincture on the interior of hive boxes and found that propolis-coated hive walls showed an antimicrobial effect on dangerous microbes in the hive and at the same time, managed to help maintain—even increase—positive microbiome in a honeybee's gut and mouth parts. It doesn't cure American Foulbrood but is does help keep it in check in an infected colony.

She found that honey bees' natural propensity is to coat any rough surface with propolis. She surmised that 'roughing' the inner walls of a hive box would trigger the resident honeybees to lay down a layer of propolis to 'smooth' it out. We are trying this on our top bar hives in Mora by chain-sawing grooves into the hive walls. We'll see if it prompts the bees to coat the wood with a layer of propolis and if that, in turn, supports the colony health!

Stay tuned....

Source: The Importance of Propolis and More with Dr. Marla Spivak (S3, E33) | Beekeeping Today **Podcast**





Wax!

By Amy Owen, Desert Hives LLC, NMBKA Member-at-Large

This is all comb from a top bar hive that I will soon melt down and filter so that I can make candles, lip balm, and wax bars for other artisans.

The color variation in this wax is due to both the age of the wax, and the purpose that wax served within the hive. Older wax is darker in color, as bees have walked over it with their pollen and dust covered 'feet'. Wax also becomes darker when larva pupates, forming a cocoon in each cell that an adult bee emerges from. Each bees cocoon is left behind, making that brood cell darker—and smaller and smaller over time.

One of my favorite features of a top bar hive is that all of the comb is made by the bees. Wax is secreted from the underside of a bees abdomen. It is then gathered, formed, and put into place.

In a top bar hive, older comb can be moved to the back of the hive box where it will be filled with honey, and/or cycled out of use. This is important because newer wax means healthier bees. Wax can accumulate pesticides and diseases (including foulbrood, one of the worst) that make bees sick and slows down their production.

Wax is literally the foundation of a bee colony. It's where they raise their babies, store their food, and host dance parties (seriously, they dance!). Bees need clean new wax to stay happy and healthy.



More wax









From formations out of the solar wax melter to beautiful finished products

Photos left to right: Kathy Grassel, Anita Amstutz, Steve Black x2

Cutout Extraordinaire

By Steve Black, with Matt Strong



hat happens when a resident needs a colony of honey bees removed from a backyard shed and doesn't have the funds to pay a commercial bee removal service? Call an NMBKA beekeeper! In mid-May, Matt Strong and Steve Black worked together to remove a large colony located below the wooden floor of a garden shed in NE Albuquerque.

The list of tools needed for cutouts is long, and in this case, Matt brought along a chainsaw! The most valuable tool in cutouts is a bee vacuum, which gets attached to the bottom and top of a 10 frame Langstroth deep box and gently draws the bees into their new home.





After one section of flooring, which was attached to the bottom of a storage shelf, was removed, the hive that had clearly been there for many years was revealed. Brood that could be safely removed was rubber-banded into empty Langstroth frames. Section after section of flooring revealed many tens of thousands of bees, until almost the entire floor was removed.



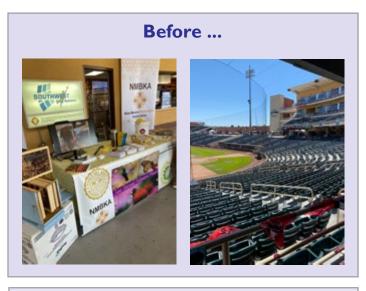


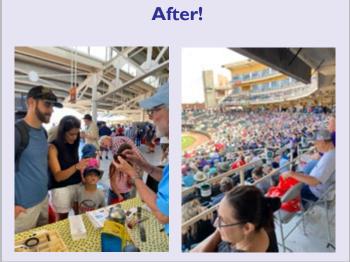
What started out looking like a couple of hours job turned out to take more than five hours, but considering the fact that we were destroying their home, the bees were extremely calm. Matt brought the bees home (we figure we captured over 200,000 bees), and split them into three separate colonies. Steve brought home almost 100 pounds of honey. Both Matt and Steve left the home, exhausted but feeling good about saving more bees!

Isotopes Park: Take Me Out to the Ball Game

By Robert Reneau, NMBKA president

e had a great time at the ABQ Beeks and NMBKA booth at the Isotopes game in Albuquerque on May 15. Special thanks to Courtney Bradley, Kathy Grassel, David Williams, Jordan Graham, and Sharolyn Eitenbichler for serving at the booth. Also, thanks to the many Level 1 and 2 Cbeeks students that helped the NM Farm and Livestock Bureau passing out gifts at the gates.

















Summer 2022

Our newsletter is a quarterly publication of the New Mexico Beekeepers Association (NMBKA).

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Become a Member of NMBKA

oin the NMBKA Hive for \$30! Help support NMBKA by becoming a paid member. NMBKA is an allvolunteer not-for-profit organization, so all of your contributions are going toward supporting our programs, including the Certified Beekeeper program and this newsletter. Annual dues are only \$30 for the family.

Membership includes admission to, and recordings of, the Winter Conference, Summer Conference and any other program. Plus it's the right thing to do to support beekeeping in New Mexico.

You can join or renew on the our website www. nmbeekeepers.org. Or if you prefer to join or renew by mail, please request a membership form on the website, complete, and mail along with \$30 to:

NMBKA PO Box 21615 Albuquerque, NM 87154

Thank you! We can't do it without you!

Let us know what's buzzing with you!

Please continue to share your stories and photos with us. We appreciate your articles and updates on all your activities and beekeeping adventures. If you would be interested in being a regular contributor with a regular column such as Allison Moore's plant column, let's talk! Thanks for taking the time to contribute to Bee Friendly!

> Your editors, Kathy Grassel Jade McLellan