The Latest Buzz

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∅ 5 attachments (1 MB)

Bee Post-Doc Call.pdf; Bee Student Call.pdf; BioinformaticsDataScientist_UtahStateUniversity[26].pdf; Bee Post-Doc Call.pdf; PhD Position Ad USDA SCRI Project_Sagili_2024.pdf;

The Latest Buzz

- The purpose of this roundup is to share pollinator opportunities and research findings. It is not a policy forum.
- This communication is for informational purposes only and should not be construed to represent any official USDA or U.S Government endorsement, determination, or policy.
- Moving forward, the Bee Health Collective (BHC) has offered to redistribute The Latest Buzz to ensure its delivered to your inbox. If you are having issues receiving The Latest Buzz or would like to invite others to receive the roundup, please sign up here to receive The Latest Buzz via the BHC (scroll to bottom of the page).
- Have something you'd like to share in the Latest Buzz? Please e-mail pollinator@usda.gov.

SPECIAL ANNOUCEMENT

New EPA Varroacide Compliance Advisory: The U.S. Environmental Protection Agency
has published a new Varroacide Compliance Advisory regarding the use of Varroacides in
honey bee colonies.

Open Comment Periods and Research Invitations:

New:

<u>Vadescana dsRNA (honey bee miticide) EPA Receipt of Application for New Active Ingredients. Closes January 18, 2023.</u> <u>Link for Comment Submission</u>

- <u>Native Seed End-User Research Survey Invitation</u>, the <u>Northeast Seed Network</u> (NSN) intended for those that purchase or use native seed and plant materials in the NE region.
- <u>USDA Highlights Efforts to Support Specialty Crops Sector</u>. USDA announced that it is
 initiating a new effort to further <u>support the U.S. specialty crops sector</u> and increase the
 competitiveness of its products. A new Specialty Crops Resource Directory gathers
 information on USDA resources and services for specialty crops producers and
 businesses. Over the next several months, USDA leadership will engage directly with the
 specialty crop industry and producers to gain feedback on how the Department can better
 address gaps in services and better meet the industry's needs. USDA encourages U.S.
 specialty crops stakeholders to submit comments by <u>March 8, 2024</u>.
- <u>U.S. Environmental Protection Digital Pesticide Labels</u>. Intended to make labeling information clearer, more consistent, and more accessible to users. The whitepaper will be open for 120 days for comment at www.regulations.gov on docket EPA-HQ-OPP-2023-0562. Comments due March 14, 2023.
- <u>USDA Launches Initiative to Enhance Competitiveness of the U.S. Specialty Crops Industry.</u> To submit a comment, visit the <u>Request for Information</u> posted in the Federal Register. Comments are due by <u>March 8, 2024</u>. A new specialty crops-dedicated webpage

designed to provide information on the initiative is available at www.usda.gov/specialty-crops.

Employment and Fellowship Opportunities:

New:

- Biological Science Technician. USDA ARS. Closes January 25, 2024.
- Graduate Student (PhD) Position at Oregon State University Honey Bee Lab. OSU. <u>Closes January 31, 2024</u>. (see attached).
- <u>USDA Climate Change Fellows Program</u>. USDA NRCS and RIAD. <u>Review begins January</u> 31, 2023.
- Native Bee Field Research Technicians. UMN. Closes January 26, 2024.
- Rhode Island Bee Atlas Coordinator. Rhode Island Division of Fish and Wildlife. Application deadline extended to January 12, 2023.
- Environmental Horticulture Program Manager. IR-4. Open until filled.
- Research Experiences for Undergraduates (REU). Boyce Thomas Institute. Closes January 31, 2024.
- Assistant Professor/ Assistant Entomologist. UCR. Next Review Date January 16, 2024.
 Final Date June 30, 2024 (open until filled).

- <u>Bioinformatics Data Scientist (Beenome 100 Project)</u>. Utah State University. <u>Application review begins January 2, 2023</u>. (see attached).
- <u>Tech III position in Pollinator Research</u>. Cornell University, Danforth Lab. <u>Posted</u> December 18. open until filled.
- Post-Doc: Robbing the Poor to Feed the Rich (the Plague): Honey Bee Robbing Behavior and Disease Implications. USDA ARS and MSU. <u>Application review begins January 2024</u> (see attached).
- Full-Time Research Associate: Robbing the Poor to Feed the Rich (the Plague): Honey Bee Robbing Behavior and Disease Implications. USDA ARS and MSU. <u>Application review</u> begins January 2024 (see attached).
- <u>Director of the Office of Risk Assessment and Cost Benefit Analysis (ORACBA)</u>, USDA. <u>Closes January 10, 2024.</u>
- Assistant Professor Cohort Hire: Empowering Biodiversity for People and Planet, Insect Biodiversity and Conservation. Cornell University. Closes January 26, 2024.
- Apicultural Technician. NCSU. <u>Closes February 1, 2024</u>. Contact David Tarpy (<u>drtarpy@ncsu.edu</u>) if interested.
- Postdoctoral Associate. MSU. Closes February 1, 2024.
- <u>Assistant Professor/ Assistant Entomologist in Agroecology and Sustainable Pest</u> Management. UC Riverside. Next Review date; January 16, 2024.
- <u>Postdoctoral Research Associate (Social Scientist, pollinator focus)</u>. WSU. <u>Closes</u> <u>January 15, 2024</u>.
- Indigenous Horticulturist. WSU. Closes January 31, 2024.
- <u>The Garden Club Of America Board Of Associates Centennial Pollinator Fellowship.</u> Pollinator Partnership. <u>Closes January 15, 2024.</u>
- Penn State Arboretum Horticultural Internships. PSU. April-August, 2024.

- Computer and Information Science and Engineering Graduate Fellowships. NSF. Closes May 31, 2024.
- <u>Tenure Track Faculty Department of Biological Sciences (Entomology).</u> Cal Poly Humboldt. <u>Closes January 31, 2024</u>.
- <u>Faculty Specialist Entomology & IPM (Full-time; Ellicott City, Maryland)</u>. UMD. <u>Open until filled</u>.
- <u>Assistant Professor/ Assistant Entomologist in Agroecology and Sustainable Pest</u>
 <u>Management</u>. University of California Riverside. <u>Next review date: January 16, 2024</u>.
- PhD Opportunity: Social wasps across Africa. University of Bristol. Closes January 9, 2024.

Funding:

New:

- <u>Biotechnology Risk Assessment Research Grants Program</u>. USDA NIFA. <u>Closes February</u> 29, 2024.
- <u>Expanding Agroforestry in the Northeast</u>. The Nature Conservancy. <u>Closes January 16</u>, 2024.
- Neurobiology in Changing Ecosystems (NiCE). NSF. September 30, 2024.
- Robert F. Schumann Foundation Grant Program (supports environmental and educational organizations). Closes February 28, 2024.
- 2024 Local Young Ag Professionals Grant Program. Closes January 14, 2024.
- President's Environmental Youth Award. EPA. Closes January 15, 2024.
- Presidential Innovation Award for Environmental Educators. EPA. Closes January 15, 2024.
- Discrimination Financial Assistance Program. USDA. Closes January 13, 2024.
- <u>IPM Alliance Grants Program</u>. California Department of Pesticide Regulation. <u>Closes January 18, 2024</u>.
- Risk Management Education Partnership. USDA RMA. Closes March 4, 2024.
- <u>Capacity Building Grants for Non-Land-Grant Colleges of Agriculture Program</u>. USFA NIFA. <u>Closes January 16, 2024</u>.
- Hispanic-Serving Institutions Education Grants Program. USDA NIFA. Closes February 8, 2024.
- Farm Business Management and Benchmarking Competitive Grants Program. USDA NIFA. Closes February 7, 2024.
- Alaska Native-Serving and Native Hawaiian-Serving Institutions Education Competitive Grants Program. USDA NIFA. Closes March 3, 2024.
- <u>Integrated Research, Education, and Extension Competitive Grants Program Organic</u> Transitions. USFA NIFA. Closes March 7, 2024.
- <u>Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grants Program</u>. USFA NIFA. <u>Closes March 8, 2024</u>.
- <u>Innovation in Education" STEAM Grant Program (California)</u>. Classroom of the Future Foundation. <u>Closes February 9, 2024</u>.

- Organic Agriculture Research and Extension Initiative. USDA NIFA. Closes February 15, 2024.
- North Dakota Specialty Crop Block Grant Program. ND Dept. of Ag. Closes January 17, 2024.
- <u>Small Business Innovation Research and Small Business Technology Transfer Programs Phase II Application</u>. USDA NIFA. <u>Closes March 26, 2024</u>.
- Honey Bee Health Grant. North American Pollinator Protection Campaign (NAPPC).
 Closes January 19, 2024.
- <u>Imperiled Bombus Conservation Grant.</u> North American Pollinator Protection Campaign (NAPPC). <u>Closes January 31, 2024</u>.
- Cohesive Wildland Fire Management Strategy. USFS. Closes January 16, 2024.
- 2024 Acres for America Program. NFWF. Pre-Proposal Due Date: February 29, 2024.
- 2024 Alliance for Advance Climate-Smart Agriculture Pilot Grant, Minnesota. MN Board of Water and Soil Resources. Closes February 8, 2024.
- <u>USDA 1890 National Scholars Program</u>. USFA OPPE. <u>Closes March 1, 2024</u>.
- Emerging Frontiers in Research and Innovation (EFRI-2024/25). NSF. Letter of Intent due January 17, 2024.
- <u>BLM Montana/Dakotas Environmental Quality Protection Program</u>. BLM. <u>Closes January</u> <u>15, 2024.</u>
- <u>FY2024 Regional Integrated Pest Management Centers Diversity, Equity, Inclusion, and Accessibility (DEIA) Grant Request for Applications</u>. Regional IPM Centers. Anticipate 1-2 grants per region. <u>Submissions accepted through January 31, 2024</u>.
- <u>FY2024 Regional Integrated Pest Management Centers Diversity, Equity, Inclusion, and Accessibility (DEIA) Fellowship Program Request for Applications</u>. Regional IPM Centers. Anticipate 2 fellowships per region.
- <u>FY2024 Regional Integrated Pest Management Centers Diversity, Equity, Inclusion, and Accessibility Mini-Grant Request for Applications</u>. Regional IPM Centers. Anticipate 1-2 mini-grants per region.
- <u>Beginning Farmer and Rancher Development Program (BFRDP)</u>. USDA NIFA. <u>Closes April 27, 2024</u>.
- <u>Crop Protection and Pest Management Competitive Grants Program</u>. USFA NIFA. <u>Closes February 15, 2024</u>.
- <u>FY 2024 Cooperative Endangered Species Conservation Fund Traditional Conservation Grants Program.</u> FWS. <u>Closes May 3, 2024</u>.
- <u>Grants for Research and Biological Inventories on Open Space Lands in Colorado</u>. BCPOS. <u>Closes January 16, 2024.</u>
- NH Conservation Districts Climate Resilience Grant (includes funding for pollinator buffer strips). NH Conservation Districts. Closes February 1, 2024.
- Opportunities for Research and Education in the Critical-Zone. NSF. Closes March 1, 2024.
- Women and Minorities in Science, Technology, Engineering, and Mathematics Fields Program, USDA NIFA. Closes February 9, 2024.
- <u>Young Farmer Grant Program</u>. Chipotle and National Young Farmers Coalition. <u>Closes</u> January 15, 2024.

• <u>Broadening Participation in Computing (BPC) Supplemental Funding in Computer and Information Science and Engineering.</u> NSF. <u>Deadline dependent on proposal size.</u>

Newly Awarded Funding and Recognitions:

- <u>USDA SARE 2023 Professional Development Projects</u>:
 - Training agriculture professionals and educators to support beginning farmer veterans' mental health (includes beekeeping). Ingrao, Michigan Food and Farming Systems
- USDA SARE 2023 Farmer/Rancher Projects:
 - Developing a Regional Spring Flowering Seed Mix to Support North Central Mason Bees. J. Block. Osmia Bee Company.
 - Creating a Sustainable Honey Bee Depository from Urban to Rural Settings R. Brooks. META.
 - Using Sainfoin and Silflower to Improve Beehive Health and Productivity in Kansas.
 A. Stovall. AJ Honey Farms LLC.
- USDA SARE 2023 Research and Education Projects:
 - Enhancing sustainable pollination on urban farms using native plant conservation strips and outreach. Szendrei. Michigan State University.
- USDA SARE 2023 Graduate Student Projects:
 - Investigating the effect of a commonly used apiculture antibiotic on honeybee colony thermoregulation and health (GNC23-370). J. Nguyen. Marquette University.
 - Developing A Genomic Breeding Program for Indiana Bee Breeders (GNC23-376).
 D. Ryals and B. Harpur. Purdue University.
- USDA SARE 2023 Partnership Projects
 - Beekeeper Learning Circles (ONC23-127). J. McGuire.

New Publications:

Rering CC, Lanier AM, Peres NA. <u>Blueberry floral probiotics: nectar microbes inhibit the growth of Colletotrichum pathogens</u>. J Appl Microbiol. 2023 Dec 1;134(12):lxad300. doi: 10.1093/jambio/lxad300. PMID: 38061796.

Rein C, Blumenschein M, Traynor K, Rosenkranz P. <u>Lithium chloride treatments in free flying honey bee colonies: efficacy, brood survival, and within-colony distribution</u>. Parasitol Res. 2023 Dec 22;123(1):67. doi: 10.1007/s00436-023-08084-y. PMID: 38133834; PMCID: PMC10746590.

Swanson L, Melathopoulos A, Bucy M. 2024. <u>Systematic review of residual toxicity studies of pesticides to bees and veracity of guidance on pesticide labels</u>. PeerJ 12:e16672 https://doi.org/10.7717/peerj.16672

Zhang G, Dilday S, Kuesel RW, Hopkins B. <u>Phytochemicals, Probiotics, Recombinant Proteins:</u> <u>Enzymatic Remedies to Pesticide Poisonings in Bees</u>. Environ Sci Technol. 2023 Dec 21. doi: 10.1021/acs.est.3c07581. Epub ahead of print. PMID: 38127782.

Schwartz et al. 2023. <u>Diverse pollen nutrition can improve the development of solitary bees but does not mitigate negative pesticide impacts</u>. Science of The Total Environment. https://doi.org/10.1016/j.scitotenv.2023.169494

Londei, T., Marzi, G. <u>Honey bees collecting pollen from the body surface of foraging bumble bees: a recurring behaviour</u>. Apidologie 55, 4 (2024). <u>https://doi.org/10.1007/s13592-023-01049-1</u>

Reuscher CM, Barth S, Gockel F, Netsch A, Seitz K, Rümenapf T, Lamp B. Processing of the 3C/D Region of the Deformed Wing Virus (DWV). Viruses. 2023 Nov 29;15(12):2344. doi: 10.3390/v15122344. PMID: 38140585; PMCID: PMC10748302.

Fisher A 2nd, Tadei R, Berenbaum M, Nieh J, Siviter H, Crall J, Glass JR, Muth F, Liao LH, Traynor K, DesJardins N, Nocelli R, Simon-Delso N, Harrison JF. <u>Breaking the cycle: Reforming pesticide regulation to protect pollinators</u>. Bioscience. 2023 Oct 23;73(11):808-813. doi: 10.1093/biosci/biad088. PMID: 38125825; PMCID: PMC10728777.

Damico ME, Beasley B, Greenstein D, Raymann K. <u>Testing the Effectiveness of a Commercially Sold Probiotic on Restoring the Gut Microbiota of Honey Bees: a Field Study.</u> Probiotics Antimicrob Proteins. 2023 Dec 19. doi: 10.1007/s12602-023-10203-1. Epub ahead of print. PMID: 38112994.

Jütte T, Wernecke A, Klaus F, Pistorius J, Dietzsch AC. <u>Risk assessment requires several bee species to address species-specific sensitivity to insecticides at field-realistic concentrations</u>. Sci Rep. 2023 Dec 18;13(1):22533. doi: 10.1038/s41598-023-48818-7. PMID: 38110412; PMCID: PMC10728145.

Tarbill GL, White AM, Sollmann R. <u>Response of pollinator taxa to fire is consistent with historic fire regimes in the Sierra Nevada and mediated through floral richness</u>†. Ecol Evol. 2023 Dec 14;13(12):e10761. doi: 10.1002/ece3.10761. PMID: 38107425; PMCID: PMC10721959.

Fischer N, Costa CP, Hur M, Kirkwood JS, Woodard SH. <u>Impacts of neonicotinoid insecticides on bumble bee energy metabolism are revealed under nectar starvation</u>. Sci Total Environ. 2023 Dec 16;912:169388. doi: 10.1016/j.scitotenv.2023.169388. Epub ahead of print. PMID: 38104805.

Danforth, B. <u>Hymenoptera: The Natural History and Diversity of Wasps, Bees, and Ants,</u> American Entomologist, Volume 69, Issue 4, Winter 2023, Pages 62–63, https://doi.org/10.1093/ae/tmad072

Oddie MAY, Lanz S, Dahle B, Yañez O, Neumann P. <u>Virus infections in honeybee colonies naturally surviving ectoparasitic mite vectors</u>. PLoS One. 2023 Dec 15;18(12):e0289883. doi: 10.1371/journal.pone.0289883. PMID: 38100484; PMCID: PMC10723705.

Lizzette Cambron-Kopco, Robyn M. Underwood, J Krispn Given, Brock A. Harpur & Margarita M. López-Uribe (2023) <u>Honey bee stocks exhibit high levels of intra-colony variation in viral loads</u>, Journal of Apicultural Research, DOI: 10.1080/00218839.2023.2285153

McIntoch, et al. 2023. <u>Plastic mulches reduce abundance of some arthropods but are not detrimental to pollinators in primocane raspberries</u>. Journal of Applied Entomology. DOI: 10.1111/jen.13221

Valdes L. and H. Scofield. 2023. <u>Nest observations reveal hygienic nest architecture and behavior in an Arctic bumble bee species</u>. Ecosphere. DOI: 10.1002/ecs2.4725

Payne, H., S. Mazer, and K. Seltmann. 2023. <u>Native Bee Habitat Restoration- Key Ecological Considerations</u>. Authorea Preprint.

Earls, K, J.B. Campbell, J.P Rinehart, K.J. Greenlee. 2023. <u>Effects of temperature on metabolic rate during metamorphosis in the alfalfa leafcutting bee</u>. Biology Open. https://doi.org/10.1242/bio.060213

G.M. Quinlan, D.A. Miller, and C.M Grozinger. 2023. <u>Examining spatial and temporal drivers of pollinator nutritional resources: evidence from five decades of honey bee colony productivity data</u>. Lett. 18 114018. DOI 10.1088/1748-9326/acff0c

Fowler, A.E., McFrederick, Q.S. & Adler, L.S. <u>Pollen Diet Diversity does not Affect Gut Bacterial Communities or Melanization in a Social and Solitary Bee Species</u>. Microb Ecol 87, 25 (2024). https://doi.org/10.1007/s00248-023-02323-6

Tobin KB, Mandes R, Martinez A, Sadd BM. <u>A simulated natural heatwave perturbs bumblebee immunity and resistance to infection</u>. J Anim Ecol. 2024 Jan 5. doi: 10.1111/1365-2656.14041. Epub ahead of print. PMID: 38180280.

Dyer Adrian G., Shrestha Mani, Garcia Jair E., Howard Scarlett R., Ratnayake Malika Nisal Dorin Alan (2023) A world without bees: new insights from Australia for managing sustainability in a changing climate. Proceedings of the Royal Society of Victoria 135, 20-29.

Steffan SA, Dharampal PS, Kueneman JG, Keller A, Argueta-Guzmán MP, McFrederick QS, Buchmann SL, Vannette RL, Edlund AF, Mezera CC, Amon N, Danforth BN. Microbes, the <u>'silent third partners' of bee-angiosperm mutualisms</u>. Trends Ecol Evol. 2024 Jan;39(1):65-77. doi: 10.1016/j.tree.2023.09.001. Epub 2023 Nov 6. PMID: 37940503.

News:

- Why are bees making less honey? Study reveals clues in five decades of data. Science Daily. <u>December 4, 2023</u>.
- How a tiny parasite and a heavy hand wiped out bees and livelihoods. Central News. December 27, 2023.
- How technology and economics can help save endangered species. OSU News. December 21, 2023.
- Common insect species are suffering the biggest losses. German Centre for Integrative Biodiversity Research. December 15, 2023.
- 548 Days of Varroa Response. Australian Honey Bee Industry Council. <u>December 22</u>, 2023.
- <u>Monarch butterflies' migration patterns are changing. Scientists want you to help. NPR.</u> <u>January 6, 2024</u>.
- <u>GreenLight Biosciences Announces EPA Registration of Calantha</u>. Press Release. <u>January 4, 2024</u>.

Events, Webinars, and Trainings:

New:

• The Mind of a Bee with Lars Chittka. Linnean Society (recorded webinar).

- <u>Commercial Beekeeping Series- Queen Rearing and Package Production</u>. Montana State University. January 8-February 16, 2024.
- American Beekeeping Federation (ABF). New Orleans, LA. January 9-13, 2024.
- Louisville Beekeeping and Research Conference. January 27, 2024.

- Agricultural Outlook Forum. Crystal City, VA. February 15-16, 2024.
- COLOSS B-RAP and Monitoring Workshop. Czechia. February 13-14, 2024.
- Monarchs and More Network Meeting Rights-of-Way as Habitat Working Group (uic.edu). Austin, TX. March 5-7, 2024.
- The Use of IPM in Beekeeping to Control Parasitic Varroa Mites. Dr. Robyn Underwood, Penn State University. March 11, 2024 – 11:00 AM ET.
- Pollinator Week. June 17-23, 2023.
- Eastern Apicultural Society. Turf Valley, MD. August 5-9, 2024.
- ACES: A Community on Ecosystem Services Conference. Austin, Texas, USA, <u>December</u> 9-12, 2024.

Data Releases:

Previously Shared:

- <u>Updated USDA Plant Hardiness Zone Map Released</u>: USDA has released an <u>updated Plant Hardiness Zone Map</u>, the standard by which gardeners and growers can determine which plants are most likely to thrive at a location. This is the first update since 2012, and it provides increased accuracy and detail. About half of the country shifted to the next warmer half zone, compared to the 2012 map.
- gSSURGO (soil maps) Database Updated: The databases can be downloaded for all states and island territories of the United States. Additionally, a single, large database is available for the conterminous United States (CONUS).
- <u>The Weeds Atlas</u>: The Weeds Atlas is a tool that allows for the monitoring of weed and invasive plant activities across the United States.

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