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Colorado Resident Survey on Native Insect Pollinator Conservation and Potential Policy Solutions

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Executive Summary:

- In August 2023, the center convened a taskforce of key stakeholders and ecological and social scientists to develop a Colorado-representative survey of the Colorado public. The purpose of the survey was to examine the public's perspectives, knowledge, behaviors related to pollinator conservation, and willingness to support/pay for pollinator conservation efforts. A total of 805 responses were received and respondents were generally representative of the Colorado public in terms of age, gender, and income.
- The Colorado public in general does not feel knowledgeable about pollinators and threats to pollinators. 73.4% of respondents reported that they felt not at all knowledgeable or only slightly knowledgeable about pollinators. 58.3% of respondents reported that they felt not at all knowledgeable or only slightly knowledgeable about threats that negatively impact insect pollinators. Respondents ranked pollution/chemicals as the greatest threat to pollinators and disease spread (e.g., from honeybees) as the lowest threat to pollinators.
- The Colorado public feels highly knowledgeable about honeybees but the majority of the public has incorrect perceptions about honeybees. Respondents believed they were more knowledgeable about honeybees than native insects (59.2% of respondents reported they were moderately, very, or extremely knowledgeable about honeybees while 37.1% reported they were moderately, very, or extremely knowledgeable about native insects). However, the majority of respondents (55.8%) also incorrectly believed that honeybees were native pollinators in Colorado and the vast majority (82.4%) believed that keeping honeybees (i.e., beekeeping) is a good strategy for supporting native insect pollinators.
- When asked if they engaged in behaviors to support pollinators, the most common were reducing/avoiding pesticides around the home (55.5%) and planting native plants (54.4%). The least common behaviors were donating to charities that support pollinator conservation (11.6%) or participating in community science related to pollinators (6.7%). Not having time and being unsure about how to help pollinators were the most common reasons why respondents had not engaged in more actions to support pollinators.
- After answering questions about beliefs, knowledge and behaviors, half of respondents (406 or 50.4%) were randomly assigned to read extra information about native insect pollinators in Colorado (i.e., intervention respondents) and the other half proceeded



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without this extra information. Respondents in the experimental group only differed significantly from the control respondents in their concern for native insect pollinators. The intervention group was around 5% more concerned than the control group but this finding was no longer significant after correcting for multiple testing. The two groups did not significantly differ in their belief of who should fund pollinator conservation, their likelihood of donating to a pollinator conservation charity, or in their acceptability of the nine hypothetical policies/programs to support native insect pollinators in Colorado.

- There was strong support (>60% acceptability) for all 9 programs/policies focused on pollinator conservation evaluated by the public. The most-supported policies were removing the sales tax on native plants (83.6% acceptability), implementing no spray areas in areas with high pollinator densities (82% acceptability), and eliminating pesticide use on school grounds (79.8% acceptability). The least-supported policies were implementing impact fees (or charges on new developments) to fund the planting of native plants for pollinators (64.1% acceptability), implementing beekeeper registration and inspection program (for properties with one or more colonies) where beekeepers are required to register their beehives and allow annual inspections of their hive (65.6% acceptability), and amending the Colorado Pesticide Applicators Act (PAA) to allow local governments to adopt any policy concerning the use of pesticides within their jurisdictional boundaries (57.8% acceptability).
- The majority of respondents were also willing to vote in support of all 9 programs/policies (>65% would 'vote for'). The percentage of respondents that would 'vote for' a particular program/policy generally matched the pattern of acceptability but tended to be slightly higher. The percent "advocate for" numbers for all policies/programs also followed the pattern for percent acceptability and "vote for" but were lower than both measures (>50% advocate for)
- Respondents were willing to pay an average (mean) of \$26.00 to subsidize the purchase of native plants to increase habitat on roadsides and \$48.73 to subsidize a state-wide beekeeper registration and inspection program.

Survey Objectives and Methods:

The Colorado State University Animal-Human Policy Center developed this study to complement the Colorado Department of Natural Resources (DNR) [Native Pollinating Insects Health Study](#) (Armstead et al., 2024). The DNR study was commissioned in response to Colorado Senate Bill 22-199, which required the DNR to review the status of native pollinating insects within the state, including species of conservation concern, mechanisms driving native pollinating insect populations and communities, and how management actions may impact or help conserve native pollinating insects. The resulting study also outlined challenges that state agencies face in managing and conserving native pollinating insects, and prioritized actions that the state can take to address their current and future health within Colorado. This included



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highlighting the need for education, training, and engagement with diverse communities around native pollinating insect conservation. This current study builds on the DNR effort by surveying the general Colorado public's support for policy actions to conserve native insect pollinators. In August 2023, the CSU Animal-Human Policy center convened a taskforce of stakeholders and ecological and social scientists (many of whom worked on the above DNR study) to develop a survey of a representative sample of the Colorado public. The purpose of the survey was to examine the public's perspectives, knowledge, behaviors related to pollinator conservation, and willingness to support/pay for pollinator conservation efforts.

Specifically, the taskforce designed the survey to answer the following research questions:

1. What are the CO public's perspectives, knowledge, and behaviors related to pollinators and pollinator conservation?
2. What is the CO public's willingness to support and pay for pollinator conservation policies that could be implemented in Colorado (that have been enacted in other states or are being considered by stakeholders here)?
3. To what extent does educational messaging about threats to pollinators influence public concern over pollinators and public willingness to support and pay for various pollinator conservation policies that could be implemented in Colorado?

Project Taskforce:

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Catherine Keske, PhD, University of California, Merced
Christy Briles, PhD, University of Colorado Denver
David Inouye, PhD, University of Maryland
John Mola, PhD, Colorado State University
Joyce Kennedy, People and Pollinators Action Network
Lynn Dicks, PhD, University of Cambridge
Nicole Rosmarino, PhD, Office of the Governor
Rebecca Irwin, PhD, North Carolina State University
Scott Hoffman Black, Xerces Society
Seth Davis, PhD, Colorado State University
Steve Armistead, Xerces Society
Tim Mauk, Colorado Department of Natural Resources

The representative sample of Colorado residents was recruited through Qualtrics, (Provo, UT), an online survey platform that provides market research panel services. Online sampling via panel providers is a popular alternative to phone and mail-based sampling methods that have seen declining response rates. Qualtrics is a panel aggregator that recruits respondents from various pools of survey-takers from their partners. To minimize selection bias, participants were asked if they would like to participate in the study without information on the topic of the survey. Depending on the panel, respondents were compensated in different ways, ranging from airline



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miles to gift cards. We used a stratified approach to recruit a sample that was representative of Colorado by age, gender, and household income.

To answer our research questions, the survey included questions about Coloradoan's beliefs and knowledge about pollinators, including honeybees and native pollinators. We asked respondents about perceived threats to native pollinators, what kinds of actions they have engaged in to support pollinators, and what barriers, if any, they face in taking those actions. To address our third research question on whether educational information on insect pollinators would influence concerns, beliefs, and intentions to donate to a pollinator conservation charity, or support for pollinator programs and policies, we randomly assigned half of respondents to read a paragraph about pollinators, their ecosystem services, and threats to their populations. We then measured respondents' concern for pollinator population declines, asked them who they think should be responsible for funding pollinator conservation in Colorado, and asked how likely they would be to donate to a pollinator conservation charity as part of their yearly charitable giving tax incentive. The additional randomized information section was added after respondents answered questions about beliefs and knowledge as to not bias those responses.

In the last section of the survey, we asked participants to evaluate different types of policies and programs to address pollinator conservation. These policies/programs were chosen by the taskforce as policies that could be implemented in Colorado. Similar policies had either been implemented in other states, or were being discussed by stakeholders in Colorado. We asked each respondent to consider each example as an independent, stand-alone policy or program and asked them to rate its acceptability, report whether or not they would vote and/or advocate for it, and provided space for them to explain why they support or do not support the policy/program. Two of the policies included willingness to pay measures, where we asked participants if they would be willing to pay a one-time voluntary donation to support a policy/program and randomly assigned a donation amount, or "bid" number (ranging from \$2 to \$100). After we received the final data from Qualtrics, we removed 16 responses that either had a non-Colorado zip code (n = 15) or had repetitive, unnatural responses to open-ended questions (n = 1).

Description of the Sample:

We received a total of 805 responses from the Qualtrics panel. The following table displays the sample proportions of three demographic variables used to target a representative sample of Colorado compared to 2022 American Community Survey Census estimates for those variables. Our sample generally mirrored Census estimates for gender and age but had fewer respondents at the higher income levels.



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Demographic	Online Sample	Census Estimates
Gender		
Man	389/805 (48.3%)	51%
Woman	406/805 (50.4%)	49%
Nonbinary	8/805 (1.0%)	<1%
Age		
18-34	268/805 (33.3%)	32%
35-54	269/805 (33.4%)	34%
55+	268/805 (33.3%)	35%
Household Income		
Less than \$50,000	243/805 (30.2%)	27%
\$50,000-\$100,000	262/805 (32.5%)	29%
Over \$100,000	300/805 (37.3%)	44%

472/803 (58.8%) of respondents grew up mostly in Colorado and 331/803 (41.2%) grew up mostly outside of Colorado. 147/803 (18.3%) currently live in a rural area, 449/803 (55.9%) currently live in a suburban area, and 207/803 (25.8%) currently live in an urban area. 270/803 (33.6%) of respondents identify as a Democrat, 181/803 (22.5%) of respondents identify as a Republican, 229/803 (28.5%) identify as an Independent, 23/803 (2.9%) identify as a Libertarian, 95/803 (11.8%) reported that they do not identify with a party, and 5/803 (<1%) reported “other.” 40/802 (5.0%) of respondents identified as

Hispanic, Latinx, or of Spanish origin, 635/802 (79.2%) identified as white, 36/802 (4.5%) identified as Black/African American, 25/802 (3.1%) identified as Asian American, 7/804 (<1%) identified as more than one race and/or ethnicity, 6/804 (<1%) identified as American Indian or Alaska Native, 4/802 (<1%) identified as Middle Eastern, and 2/802 (<1%) identified as Native Hawaiian or Pacific Islander.

Results:

General Pollinator Beliefs and Knowledge

All respondents were asked the following questions before being exposed to any additional randomized information for the experimental portion of this survey (i.e., answering research question 3):

Respondents were shown the following statement: “We are interested in learning about your perspectives and opinions about pollinators in Colorado and strategies to address issues related to them. A **pollinator** is an animal that transfers pollen from one flower to another to help plants make fruits and seeds. Pollinators include many different types of species, such as insects, birds, and bats. In this survey, we will be focusing on **insect pollinators**, such as bees, butterflies, flies, and moths. A **native pollinator** is one that naturally lives in Colorado’s wild and urban areas, rather than those that were brought here by humans.”

When we asked respondents how knowledgeable they felt about *pollinators* 99/805 (12.3%) reported “Not knowledgeable at all,” 302/805 (37.5%) reported “Slightly knowledgeable,”



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289/805 (35.9%) reported “Moderately knowledgeable,” 84/805 (10.4%) reported “Very knowledgeable,” and 31/805 (3.9%) reported “Extremely knowledgeable.”

When we asked respondents how knowledgeable they felt about *native insects* 196/804 (24.4%) reported “Not knowledgeable at all,” 310/804 (38.6%) reported “Slightly knowledgeable,” 213/804 (26.5%) reported “Moderately knowledgeable,” 65/804 (8.1%) reported “Very knowledgeable,” and 20/804 (2.5%) reported “Extremely knowledgeable.”

When we asked respondents how knowledgeable they felt about *honey bees* 46/805 (5.7%) reported “Not knowledgeable at all,” 282/805 (35.0%) reported “Slightly knowledgeable,” 302/805 (37.5%) reported “Moderately knowledgeable,” 132/805 (16.4%) reported “Very knowledgeable,” and 43/805 (5.3%) reported “Extremely knowledgeable.”

To measure objective bee knowledge, we asked respondents, “Are there other bees that pollinate plants besides honey bees?” The correct answer is “Yes”, there are other bees that pollinate plants besides honey bees. 458/805 (56.9%) responded “Yes,” 49/805 (6.1%) responded “No,” and 298/805 (37.0%) responded “I’m not sure.”

To measure objective bee knowledge, we asked respondents, “Are honey bees considered a native pollinator in Colorado?” The correct answer is “No”, honey bees are not considered a native pollinator in Colorado. 449/805 (55.8%) responded “Yes,” 65/805 (8.1%) responded “No,” and 291/805 (36.2%) responded “I’m not sure.”

We asked respondents, “How knowledgeable do you feel about threats that negatively impact insect pollinators?” 153/805 (19.0%) reported “Not knowledgeable at all,” 316/805 (39.3%) reported “Slightly knowledgeable,” 243/805 (30.2%) reported “Moderately knowledgeable,” 69/805 (8.6%) reported “Very knowledgeable,” and 24/805 (3.0%) reported “Extremely knowledgeable.”

To measure objective bee knowledge, we asked respondents, “Do you think that keeping honeybees (i.e., beekeeping) is a good strategy for supporting native insect pollinators?” 663/805 (82.4%) responded “Yes,” 37/805 (4.6%) responded “No,” and 105/805 (13.0%) responded “I’m not sure.”

We asked respondents, in their opinion, how much do the following (i.e., lack of habitat, pollution, chemicals, disease spread, and climate change) threaten pollinators in Colorado? The following table outlines the responses to this question:



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Threat	Not at all	A little	A moderate amount	A lot	A great deal
Lack of habitat (e.g., urbanization, monoculture agriculture)	31/805 (3.9%)	98/805 (12.2%)	256/805 (31.8%)	262/805 (32.6%)	158/805 (19.6%)
Pollution/Chemicals (e.g., ozone, pesticides, herbicides, insecticides)	24/805 (3.0%)	68/805 (8.5%)	164/805 (20.4%)	270/805 (33.5%)	279/805 (34.7%)
Disease spread (e.g., from honeybees)	61/804 (7.6%)	148/804 (18.4%)	253/804 (31.5%)	207/804 (25.7%)	135/804 (16.8%)
Climate change	60/803 (7.5%)	101/803 (12.6%)	196/803 (24.4%)	228/803 (28.4%)	218/803 (27.1%)

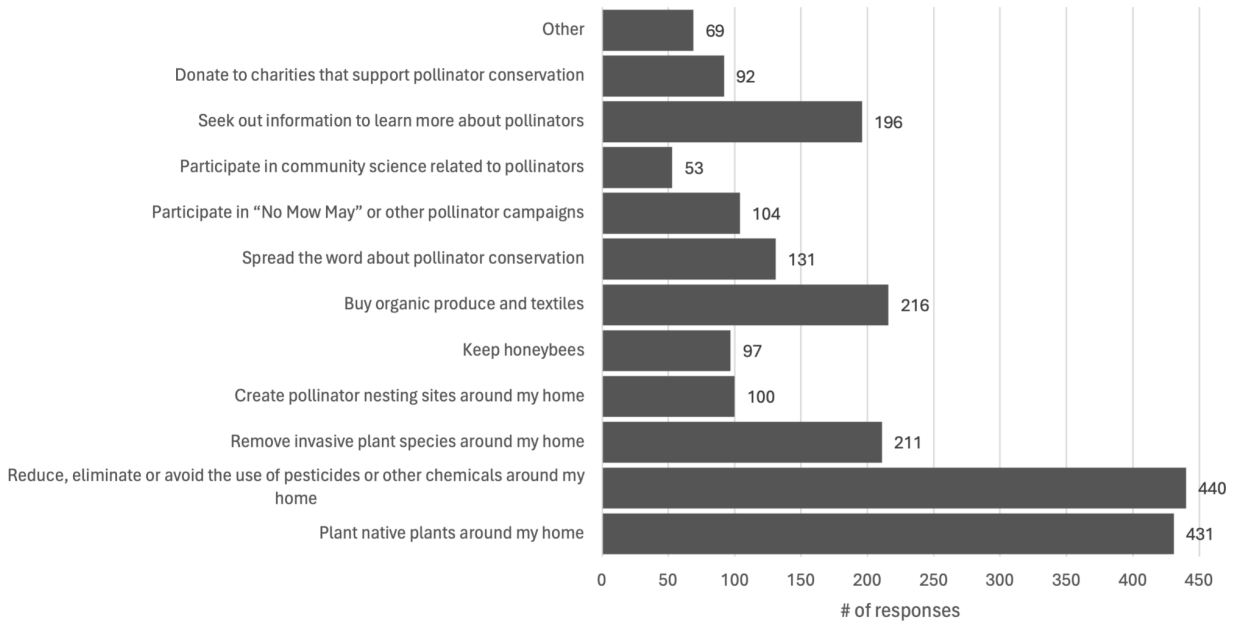
We asked respondents which types of actions they have participated in to support pollinators ($n = 793$).

- Reduce, eliminate, or avoid the use of pesticides or other chemicals around my home: 440 (55.5%)
- Plant native plants around my home: 431 (54.4%)
- Buy organic produce and textiles: 216 (27.2%)
- Remove invasive plant species around my home: 211 (26.6%)
- Seek out information to learn more about pollinators (e.g., attend presentations, participate in guided nature walks, etc.): 196 (24.7%)
- Spread the word about pollinator conservation: 131 (16.5%)
- Participate in “No Mow May” or other pollinator campaigns: 104 (13.1%)
- Create pollinator nesting sites around my home: 100 (12.6%)
- Keep honeybees: 97 (12.2%)
- Donate to charities that support pollinator conservation 92 (11.6%)
- Other: 69 (8.7%)
- Participate in community science related to pollinators (e.g., sharing observations on platforms like iNaturalist): 53 (6.7%)



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Which of the following actions have you participated in to support pollinators?
(Select all that apply)



"Other" responses included:

- Nothing
- I have participated in the weeding of the native plant gardens in a neighboring City.
- Took a beekeeping class to become more knowledgeable on the subject.
- When they're exhausted, I try to feed them sugar water
- Promote pollinators through my landscaping business
- Financially contributed to friends that keep bees
- Support local beekeepers
- Visit botanical gardens to learn about plants and ecosystems
- Replacing grass with clover and other plants
- Don't kill pollinators/Left bees alone
- Include pollinators in Kids In Nature programs
- I plant honeybee friendly gardens and flowers around my property.
- buy a lot of honey
- Talked to beekeepers and explained colony abandonment disorder and the mite and genetic issues.

We asked, what, if anything, keeps you from participating in the above actions? Respondents selected barriers from the following options:

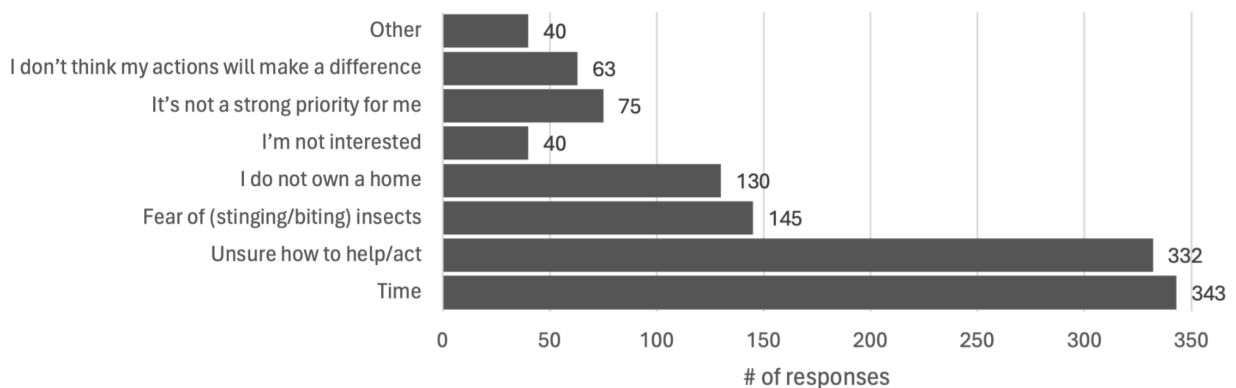
- Time: 343 (43.0%)
- Unsure how to help/act: 332 (41.7%)



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- Fear of (stinging/biting) insects: 145 (18.2%)
- I do not own a home: 130 (16.3%)
- It's not a strong priority for me: 75 (9.4%)
- I don't think my actions will make a difference: 63 (7.5%)
- I'm not interested: 40 (5.0%)
- Other: 40 (5.0%)

What, if anything, keeps you from participating in the above actions?
(Select all that apply)



“Other” responses included:

- I would not know how
- Waste of time with town and county fogging with items that kill bees, flies and mosquitoes
- No lawn/yard
- Allergies
- I live in a condo so I don't make the decisions on plants or pesticides in my neighborhood.
- HOAs prevent a lot of these, such as keeping bees or not mowing yard
- While I want to incorporate bees, I live too closely to children where there may be a danger with neighbors
- HOA requires weed control at out home and have insisted herbicides be used to control weed growth
- Two young kids that take away from learning more about what I can do
- Have to take care for family member
- I am physically disabled
- I didn't know about it
- Land to keep a bee hive
- I try to participate as much as time allows
- Health issues



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- Lack of mobility
- Elderly and arthritis

Experimental Education Messaging, Concern for Pollinators, and Perceived Responsibility

In the next section of the survey, half of respondents were randomly assigned to read the below statement:

“In the following passage, we have included some information about the scientific consensus on the benefits of pollinators and how pollinator species are currently threatened.

Please read the passage carefully before we ask you more questions about pollinators.

Humans rely on pollinators to help us grow food and agricultural goods. Pollinators help grow the food that we eat like our fruits and vegetables, coffee and chocolate, by depositing pollen from one flower to another and helping with the reproduction of crops. According to the global assessment on pollinators produced by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), “75 percent of our food crops and nearly 90 percent of wild flowering plants depend to some extent on animal pollination” (United Nations). In addition, “the United States alone grows more than 100 crops that either need or benefit from pollinators, and the economic value of these native pollinators is estimated at \$3 billion per year in the U.S” (Xerces Society). Pollinators are also important for other non-human species. “Fruits and seeds derived from insect pollination are a major part of the diet of approximately 25% of all birds, and of mammals ranging from red-backed voles to grizzly bears” (Xerces Society). However, there are a variety of threats to some pollinator populations, such as pesticide use, habitat loss, introduced diseases, agricultural practices, and climate change. Currently, 16% of vertebrate (i.e., birds, bats, etc.) pollinators, and more than 40% percent of invertebrate (i.e., insects) pollinators, are facing global extinction” (United Nations). While insect pollinators are the most susceptible to extinction, many states do not have the authority to protect insect pollinators because invertebrates are not considered wildlife. In Colorado, vertebrate pollinators (like birds and bats) are under Colorado Parks and Wildlife’s jurisdiction, however, this agency lacks authority over invertebrate pollinators (i.e., insect pollinators), which limits or prevents conservation action by the state on their behalf.”

For all the survey questions discussed below, we first present responses among the full sample and then present the results from those who got the message above (intervention group, n =



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406 (50.4%)) and those who did not (control group, n = 399 (49.6%)). Finally, we present the results of statistical tests examining whether responses from intervention and control were different.

We asked respondents, “How concerned are you about declines in native pollinator populations in Colorado?”

Full Sample Response: 43/803 (5.4%) reported that they were not at all concerned, 170/803 (21.2%) reported “somewhat concerned,” 245/803 (30.5%) were “moderately concerned,” 233/803 (29.0%) were “very concerned, and 112/803 (13.9%) were “extremely concerned.”

Intervention Respondents: 17/405 (4.2%) reported that they were not at all concerned, 68/405 (16.8%) reported “somewhat concerned,” 133/405 (32.8%) were “moderately concerned,” 135/405 (33.3%) were “very concerned, and 52/405 (12.8%) were “extremely concerned.”

Control Respondents: 26/398 (6.5%) reported that they were not at all concerned, 102/398 (25.6%) reported “somewhat concerned,” 112/398 (28.1%) were “moderately concerned,” 98/398 (24.6%) were “very concerned, and 60/398 (15.1%) were “extremely concerned.”

Comparing Intervention and Control: On a 1-5 scale, the average concern rating for intervention respondents was 3.34, and the average concern rating for control respondents was 3.16. A Wilcoxon rank sum test indicated that there was a significant difference (around 5%) in means between the two groups ($W = 88080, p = .018$), though when adjusting for multiple comparisons, this p-value is no longer significant at a bonferroni-corrected alpha level of .005.

We asked respondents, “Who do you think should be responsible for funding pollinator conservation in Colorado?” Respondents were asked to select all that apply:

	Full Sample (n = 804)	Experimental group (n = 406)	Control Group (n = 398)
Government programs focused on agriculture	481 (59.8%)	248 (61.1%)	233 (58.5%)
Government programs focused on wildlife	441 (54.9%)	226 (55.7%)	215 (54.0%)
State government	354 (44.0%)	181 (44.6%)	173 (43.5%)
Large-scale agriculture industry	338 (42.0%)	174 (42.9%)	164 (41.2%)
Residents of Colorado	328 (40.8%)	162 (39.9%)	166 (41.7%)
Local municipalities	249 (31.0%)	118 (29.1%)	131 (32.9%)
Other	27 (3.4%)	17 (4.2%)	10 (2.5%)



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We did not run tests to determine whether there were differences between the experimental groups as the observed frequencies do not appear to differ drastically.

We asked respondents, “How likely are you to donate to a Colorado charity that supports native pollinators (like People & Pollinators Action Network (PPAN) or The Xerces Society) as part of your yearly charitable giving tax incentive when you pay taxes in the next year?”

Full Sample Response: 81/801 (10.1%) reported “extremely unlikely,” 94/801 (11.7%) reported “somewhat unlikely,” 244/801 (30.5%) reported “neither likely nor unlikely,” 276/801 (34.5%) reported “somewhat likely,” and 106/801 (13.2%) reported “extremely likely.”

Intervention Respondents: 41/404 (10.1%) reported “extremely unlikely,” 44/404 (10.9%) reported “somewhat unlikely,” 111/404 (27.5%) reported “neither likely nor unlikely,” 153/404 (37.9%) reported “somewhat likely,” and 55/404 (13.6%) reported “extremely likely.”

Control Respondents: 40/397 (10.1%) reported “extremely unlikely,” 50/397 (12.6%) reported “somewhat unlikely,” 133/397 (33.5%) reported “neither likely nor unlikely,” 123/397 (31.0%) reported “somewhat likely,” and 51/397 (12.8%) reported “extremely likely.”

Comparing Intervention and Control: On a 1-5 scale, the average likelihood rating for intervention respondents was 3.34, and the average concern rating for control respondents was 3.24. A Wilcoxon rank sum test indicated that there was not a significant difference in means between the two groups ($W = 85012, p = 0.126$).

Pollinator Policies and Programs

The respondents read the following passage:

“We are also interested in hearing your thoughts on different types of policies and programs that can address issues related to pollinators in Colorado. Please answer the following questions about hypothetical policies/programs in Colorado.

Advocate: In this survey, advocating for a program/policy could mean telling someone else about it, calling a policymaker to voice your support for it, writing an op ed on it, or any similar action to support the program/policy.

Please consider each example as an independent, stand-alone policy or program.”

The order of the following policies/programs was randomized to reduce question order bias.



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Number	Name	Average Acceptability (1 = Extremely unacceptable; 7 = Extremely acceptable)	% Acceptable	% Vote for	% Advocate for
4	Remove Sales Tax for Native Plants	5.9	83.6%	88.6%	74.6%
2	No Spray Areas	5.8	82.0%	86.4%	71.6%
1	Eliminating Pesticide Use on School Grounds	5.8	79.8%	85.6%	69.5%
8	Creating an Annual Budget for Native Habitat on Roadsides	5.6	77.2%	79.6%	62.4%
5	CPW Jurisdiction of Insect Pollinators	5.6	76.3%	85.5%	69.3%
7	Prohibit Neonicotinoids in Non-Agricultural Settings	5.5	74.6%	80.5%	64.4%
9	Honey Beekeeper Registration/Inspection	5.1	65.5%	69.9%	51.9%
6	Impact Fees for Pollinator Habitat Restoration	5.1	64.1%	72.3%	58.4%
3	Allow Local Governments to Adopt Pesticide Policies	4.9	57.8%	66.5%	53.7%

We ran non-parametric Wilcoxon Ranked Sum Tests and found that acceptability ratings of all 9 policies/programs did not differ significantly between the intervention group and the control group. Chi-squared sensitivity analyses confirmed these results.

In the following policy summaries “unacceptable” refers to participants who responded with “slightly unacceptable,” “unacceptable,” or “extremely unacceptable,” and “acceptable” refers to participants who responded with “slightly acceptable,” “acceptable,” or “extremely acceptable.”

Policy #1: Eliminating Pesticide Use on School Grounds

Respondents were asked: “This year, the Illinois state government created the Pesticide Application at Schools Act which “prohibits the application of pesticides on K-8 school grounds



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during the school day when students are in attendance for instructional purposes” to support vulnerable human and pollinator populations. If Colorado created a similar policy that eliminates pesticide use on school grounds to reduce pesticide exposure to sensitive populations of people and pollinators, how acceptable would this be?”

N= 802

Unacceptable	Neutral	Acceptable
51 (6.4%)	111 (13.8%)	640 (79.8%)

686/801 (85.6%) would vote for this policy. 557/802 (69.5%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- Desire to protect children from chemicals/pesticides harmful to people
- Elimination of pesticides anywhere anytime is good/don't like pesticides generally/all pesticides should be illegal
- Support overall well being of student health, protects students from allergies from pesticides
- Help bees/pollinators and all insects
- Helps restore the balance of nature, protect Earth/environment, other wildlife
- Would help educate kids about pollinators
- Schools are a good place to start

Anti/Concerns:

- Not enough because would want ban on pesticides to apply beyond the school day/school grounds shouldn't have any pesticides
- Don't like regulations/government overreach
- Not needed
- Would make teacher shortage worse
- Will make pest problems worse
- School grounds are a very small area/not much plant life around schools so wouldn't make much of an impact
- The money would not go to where it needs to go, it's all in the politicians' pocket
- Concern about more bees causing more stings/allergic reaction situations at school
- Don't know enough
- One-sided policy



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Policy # 2: No Spray Areas

Respondents were asked: “No spray areas are zones in which neonicotinoid pesticides cannot be applied to plants within the boundaries of a specific area. If Colorado created a policy that implements no spray areas in habitat with dense populations of pollinators, how acceptable would this be?”

N = 804

Unacceptable	Neutral	Acceptable
49 (6.1%)	96 (11.9%)	659 (82.0%)

695/804 (86.4%) would vote for this policy. 576/804 (71.6%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- Positively impact pollinators
- Would rather they eliminated neonicotinoid pesticides completely in CO, but gains are gains
- Need to save plants/best habitat
- Spraying pesticides is harmful in many ways (e.g., impact asthma, cause health problems)
- Would help air pollution
- Need to save ecosystems and species
- Need to do something right away
- I don't spray so it would support things I already do
- Would show we care
- We rely on pollinators/it will benefit us in the future/need pollinators for food supply
- Overuse pesticides already/plenty of areas where neonicotinoids simply aren't necessary or even all that helpful.

Anti/Concerns:

- Need more info on impact to pollinators and economic impacts/need to do more research and form an opinion on what is helpful to sustain the bees
- Don't know what neonicotinoids are
- Forbidding pesticides only in some areas won't make much of a difference
- It would be a little less acceptable because it sends certain people out of jobs that require them to spray areas
- Don't want more regulations



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- The idea of specific zones I think then leaves it up to too much individual interpretation. Either ban them entirely, or allow them entirely.
- Will need to be enforced
- Only if its not costly/doesn't involve financial impact on everyday citizens
- Don't care
- Pesticides unfortunately, are very needed because everyone hates dealing with bugs in their homes
- Depends on the type of insect in an area
- Would need to research where the locations would impact before deciding how to vote. If it's in parks, great. If it's compact residential areas, nope
- I'm not in favor of a bunch of laws. Colorado's already gotten way too restrictive on other things and I don't trust them that much
- Allergic to bees
- Farmers need to spray to protect harvest yield
- state needs to be responsible enough
- some of these areas might contain private land

Policy # 3: Allow Local Governments to Adopt Pesticide Policies

Respondents were asked: "Prior to 1996, the Colorado Pesticide Applicators' Act (PAA) allowed local governments to regulate the use of pesticides on agricultural, private or public property. This authority has since been almost entirely eliminated, and the Colorado Department of Agriculture (CDA) now has exclusive authority to regulate pesticides. How acceptable would it be to amend the PAA to allow local governments to adopt any policy concerning the use of pesticides within their jurisdictional boundaries?"

N = 803

Unacceptable	Neutral	Acceptable
117 (14.6%)	222 (27.6%)	464 (57.8%)

531/799 (66.5%) would vote for this policy. 429/799 (53.7%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- It would be another way to prevent harmful chemicals/pesticides from being used
- Important for pollinators and the environment and people



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- People who live in specific areas know specific needs and values/Different areas have different needs and problems. By localizing action, each area will have the ability to determine the best course of action.
- It would lead to tighter control
- Locally led decisions are better/local governments are more familiar with their context, community, and territory/the state cannot govern all smaller bodies with accuracy and knowledge
- Although it should be a state issue, I don't trust the state to do things as they should
- I think local governments can do a better job of informing people about pesticides impacting pollinators. I think they can work with CDA to enforce changes local farmers and agricultural businesses make to reduce the negative impact on pollinators.
- Local governments should have a say in their jurisdictions
- Puts more power in the voters' hands
- Local authorities can better develop policies that the community wants. There definitely needs to be some oversight and guidance for pesticide use at the local level.
- If the local jurisdiction can ensure that their choices don't adversely affect neighboring jurisdictions, then I'm all for it
- Worry about one group (i.e. state government) having sole discretion about any policy.

Anti/Concerns:

- Local leaders rarely have any expertise in areas like this.
- Don't trust local governments to listen to scientific evidence.
- It depends -- I think local governments should have full authority to pass MORE restrictive regulations, but they should also be required to abide by state and federal regulations at minimum/ needs to be more checks and balances across agencies/needs to be minimum guidelines at state level
- Don't think the government should mandate pesticides on private or privately owned agricultural property. I think a better way would be to educate and work with homeowners and farmers to identify and utilize alternatives to pesticides.
- Because where I am located it is the local governments that are using the pesticides that are toxic to the pollinators/ While some local governments would do well with this, others could ramp up their use of harmful pesticides
- I just don't think local entities would get around to regulating pesticides/likelihood of some local government to not support any type of protection
- People should be able to choose what happens on their land
- Don't know enough/don't understand policy
- Local governments shouldn't be involved/state government should have control over these issues
- Regulation by one government agency is enough
- Local municipalities might be swayed monetarily in favor of expansion/worry that if the "local governments" are left to decide, they'll choose profit over health.



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- Governments do not have the people's best interest in mind
- I can foresee a situation where there's this confusing patchwork of regulations where one community allows certain things and the community next to it does not and the confusion of what rules apply where/Having a patchwork of varying rules and regulations across the state would not be the best method of conservation; better that all counties fall under the jurisdiction of one body to keep results consistent.
- With the department of ag as the overseer of applicators it protects more than would be on a local or municipal level.

Policy # 4: Remove Sales Tax for Native Plants

Respondents were asked: "Native plants provide habitat (i.e., food and shelter) for pollinators. If Colorado created a policy that removes the sales tax on the purchase of native landscaping plants to encourage more individuals to plant native plants to support pollinators, how acceptable would this be?"

N = 804

Unacceptable	Neutral	Acceptable
32 (4.0%)	100 (12.4%)	672 (83.6%)

712/804 (88.6%) would vote for this policy. 600/804 (74.6%) would advocate for this policy.

We asked respondents, "Would you be more likely to purchase a native plant if this policy passes (i.e. the sales tax were removed for native plants)?" 54/802 (6.7%) reported "No, I would still be unlikely to purchase a native plant," 255/802 (31.8%) reported "Yes, slightly more likely." 304/802 (37.9%) reported "Yes, much more likely," and 189/802 (23.6%) reported "I would purchase a native plant either way."

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- good incentive/promotes buying of more native plants
- positive for everyone/win-win
- helps save pollinators, pollinators and native plants good for the ecosystem
- would encourage me to plant more native plants
- Could also be an incentive for builders/developers to buy native plants
- Have too much taxes in general
- Making anything that helps our environment more affordable is a step in the right direction.



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- It would have minimal impact on state revenue but might increase planting of native species.
- Increases awareness of the problem
- Policy acts as encouragement without requiring me to change purchasing habits, locations, etc.
- Support anything that saves people money
- Enables individuals to contribute to the solution
- Lack of sales tax income to state would be minimal.

Anti/Concerns:

- Won't be effective/don't think removing sales tax on the plants will get more people to purchase the plants/don't think an individual homeowner would have the greatest impact compared to development
- Don't own a home to plant native plants/don't do yard work/don't have land to plant native plants
- Still can't afford the base costs of native plants
- Just about everyone/everything can think of reasons they shouldn't pay taxes. I think we need a level playing field in regard to taxation
- Concern about impact to overall state tax revenue/feel that sales tax is necessary to help provide funding for all the programs that it does
- 'If Colorado is going to remove the sales tax off of anything it sure better be our groceries'

Policy # 5: CPW Jurisdiction of Insect Pollinators

Respondents were asked: "In Colorado, vertebrate pollinators (like birds and bats) are under Colorado Parks and Wildlife's jurisdiction, however, this agency lacks authority over invertebrate pollinators (i.e., insect pollinators), which limits or prevents conservation action by the state on their behalf. If Colorado created a policy that insect pollinator conservation is under the jurisdiction of Colorado Parks and Wildlife, how acceptable would this be?"

N = 802

Unacceptable	Neutral	Acceptable
40 (5.0%)	150 (18.7%)	612 (76.3%)

685/801 (85.5%) would vote for this policy. 556/802 (69.3%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:



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Pro:

- CPW would be a logical arbiter of this policy/would be the right organization/CPW has the infrastructure to implement/trust CPW
- It would allow for all pollinators to have protection
- Helps organize effort and resources and funding towards invertebrate pollinator protection
- Some agency should have jurisdiction over a population with this much impact.
- All wildlife should be under CPW/insects are wildlife too/invertebrates are important pollinators
- insects are some of the most important keystone species and part of the food chain /Colorado Parks and Wildlife need pollinators for habitat. They can't afford the loss of native plants due to reduced numbers of insect pollinators.

Anti/Concerns:

- More information/research needed
- It would need additional funding/ Colorado Parks and Wildlife is restricted due to its budget and staffing levels/CPW already has their hands full
- Don't trust CPW
- not sold on invertebrate pollinators being wildlife.
- It would depend on what type of authority they were given. Could they address pesticide use? Could they promote and encourage native plant education and provide funding to communities? They would need to be able to develop a lot of outreach to educate the public.
- Don't really think the government needs to get more involved/don't need more government oversight
- My only concern is if this might make more sense to be under control of an agency in charge of agriculture rather than wildlife. Preservation of pollinators is more directly connected to our agricultural needs, so I wonder if that might make policies more effective than simply thinking of them as wildlife.
- Pollinators need to be supported by more than a single agency.
- Doesn't seem like the right agency

Program # 6 Impact Fees for Pollinator Habitat Restoration

Respondents were asked: "Impact fees are one-time fees charged on new development to offset the building impacts. Impact fees could be used to support pollinator habitat restoration by funding the planting of native plants for pollinator habitat in other areas. If your local municipality



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(e.g., your town, county or district) created impact fees to support native pollinators, how acceptable would this be?”

N = 803

Unacceptable	Neutral	Acceptable
108 (13.4%)	180 (22.4%)	515 (64.1%)

579/801 (72.3%) would vote for this policy. 469/803 (58.4%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- helps pollinators and the environment
- If habitat for pollinators is reduced or damaged by local builders and developers, they could afford to pay fees so other areas can be restored for native pollinators.
- This is a plan that could gain momentum from homeowners that live to garden
- The huge amount of construction should assist in the cost to improve pollination
- I think we all have to do our parts. I do small things because I do not have a lot of money. If a developer is going to disrupt a pollinators area of existence, it's in all of our interests, including his if that developer pays for that 'right'.
- I think we should have to pay for the impacts we make/ New development needs to take into consideration their impacts on the environment

Anti/Concerns:

- Need to ensure funds actually went to offsetting impacts
- It's a good idea on the surface, but there are other less intrusive ways to encourage conservation, and adding additional fees to construction projects may deter them. With the affordable housing crisis currently ongoing, this may create more problems than it solves.
- don't think a tax is going to go over very well/ I don't think developers would agree to the fee and they would strongly lobby against it.
- There is enough burden on the taxpayers as it is/Government should just pay/too many costs to people
- Depends on what the actual cost impact would be/details of the program
- I think a one time use fee is not the best way to fund pollinator protection.
- Money from fees should go to schools and other social programs



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- Because my local government would not use the funds as they were meant to and in reality it would not make that much difference to the original loss of area.
- I think it would be better to just require native plants be installed at any new development.
- Want to see how this affects taxes/Don't want tax dollars going to specific cause/can't afford more taxes
- It's no guarantee that the funds will be used appropriately/provides too much opportunity for corruption. Instead a requirement to plant and preserve an area in relation to Sq ft is more appropriate and could be overseen.
- I generally think that the government at all levels poorly budgets and already has the money available for conservation as a result of tax revenue that could be allocated versus implementing a fee.
- as the community we shouldn't have to be forced to pay fees for something like that.
- Real estate is already overpriced, this policy makes it worse/ We have to be careful with impact fees and to balance other fees with affordable housing goals. Too many impact fees will further reduce the ability to build housing.

Policy # 7: Prohibit Neonicotinoids in Non-agricultural Settings

Respondents were asked: "Neonicotinoids are a type of insecticide (i.e., pesticide) used to manage plant pests but they are also harmful to bees and other small pollinating insects. Nevada has enacted legislation to prohibit the use of neonicotinoids in non-agricultural settings such as lawns, gardens, and golf courses. If Colorado created a policy that restricts the use of neonicotinoids in non-agricultural settings, how acceptable would this be?"

N = 803

Unacceptable	Neutral	Acceptable
56 (7.0%)	148 (18.4%)	599 (74.6%)

647/804 (80.5%) would vote for this policy. 518/804 (64.4%) would advocate for this policy.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- Pollinators needed for agriculture, food
- Support anything to help bees
- Neonicotinoids are harmful to people, pets, and insects and reduction would be beneficial for numerous reasons
- Benefit the earth



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- Dislike pesticides in general/want less chemicals
- There better ways of controlling pests than neonicotinoids/effective alternatives exist
- I believe that many of the problems that we have are a direct result of pesticides that have been developed without insight into the negative impacts they might have on the environment in the future.
- Homeowner's rights don't trump the public writ large. They can find alternatives to neonicotinoids
- I think it's not only good for bees but also force the business to improve their products.
- Improve production of honey
- I would support this policy to secure a healthy environment for our children and adults as well.
- If Nevada has proven advocacy and workability, why not Colorado
- Good for pollinators and earth

Anti/Concern:

- not super knowledgeable about this/would need more information on what pesticide does and why its used and alternative/not sure how widespread use of neonicotinoids is or what impact of this ban would be
- I think they should be banned entirely, in both agricultural and non-agricultural applications.
- Education is better than instituting a policy like this
- Would want to know what a farmer thinks of this
- the fact that it applies to personal lawns gives me slight pause/ if someone is growing a garden that is being terrorized by beetles or whatever, it's nice for them to have various options of pest control/ I don't want my state telling me what I can do as far as my own house.
- Might be a hardship for individual property owners to manage their property
- Getting rid of the chemicals hurts farmers.
- I do not feel this could or would be enforced
- Pollinating insects travel all over the place.

Policy # 8: Creating an Annual Budget for Native Habitat on Roadsides

Respondents were asked: "The Colorado Department of Transportation (CDOT) currently has a directive requiring native plants to be used on all new projects to support native pollinators. Even with this initiative, increasing native vegetation on roadsides has been a slow process. If Colorado created an annual budget for increasing native habitat on roadsides and in other areas, how acceptable would this be?"

N = 803



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Unacceptable	Neutral	Acceptable
50 (6.2%)	133 (16.6%)	620 (77.2%)

639/803 (79.6%) would vote for this policy. 501/803 (62.4%) would advocate for this policy.

We asked respondents, "Would you be willing to pay a one-time voluntary donation of \$X to subsidize the purchase of pollinator-friendly native plants to increase native habitat on roadsides and in other areas?" The donation amount was randomized to \$2, \$15, \$25, \$35, or \$50.

Respondents were willing to pay an average (mean) of \$26.00 to subsidize the purchase of native plants to increase habitats on roadsides.

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- They would spend money for plants anyway and native plants could help
- Could help employ people to do this job for CDOT
- Help pollinators and the earth
- Prioritizes native over invasive or non-native plants, creates native habitat
- I like the idea of government using the extensive land it controls this way. I think it's easier to create impacts in this manner than necessarily expecting individuals to change their behaviors/I think this is a great way to have a big impact on bees with little impact on policy or requirements to individuals.
- I like Colorado plants
- Will beautify the highways
- This would be an extra and easy way to get these planted. Signs could be used to educate people about what has been planted. a small sign saying " pollinator garden" along highways would help people see how beautiful these plants are!
- do it, take away from some of the other agendas that are wasting resources.
- Planting non-native plants leads to wasted water

Anti/Concerns:

- Worried it would increase taxes to pay for this, don't want to pay more taxes, already pay a lot
- Maintenance after initial installation of plants in these areas is rarely done, resulting in no benefit for the expense/Who would take care of these native plants on the roadside?
- Creating a policy or partnership with a volunteer organization to grow and plant on roadsides would be easier



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- Where would the money come from to?/ It would depend on how State would create budget from where and how.
- Don't know how much of an impact it would actually make
- Don't trust money will actually go to this project
- There are too many causes in this world. Can't keep up.
- Given the homeless crisis with tent villages springing up along roadsides and under bridges I doubt that the native plants would last very long.
- I do not support because the bees should not be given habitats next to roadways due to pollution
- Are bees really this important?
- CDOT needs to fix the roads first. It's great to pass this, but useless if they don't have enough staff to follow-through.

Program # 9: Honey Beekeeper Registration/Inspection

Respondents were asked: "People keep honey bees because they pollinate plants and they provide honey and other products. However, honeybees are originally from Asia, Europe, and Africa, and are not native to Colorado. When unmanaged, honeybees can spread diseases to other pollinator species and compete with native bees for pollen and nectar. In other states, like Florida, California, and North Dakota, beekeepers must register their beehives annually and have their hives inspected to help manage pests, disease spread, and unwanted species. Colorado does not currently have a registry of licensed beehives. How acceptable would it be to you if Colorado created a beekeeper registration and inspection program (for properties with one or more colonies) where beekeepers are required to register their beehives and allow annual inspections of their hives? The program could be in part funded by beekeepers paying an annual fee depending on their number of colonies (For example: \$10 for 1-5 colonies, \$20 for 6-40 colonies: \$20, \$40 for 41-200 colonies, \$70 for 201-500 colonies, and \$100 for 501+ colonies)."

N = 803

Unacceptable	Neutral	Acceptable
97 (12.1%)	179 (22.3%)	527 (65.6%)

560/801 (69.9%) would vote for this policy. 416/801 (51.9%) would advocate for this policy.

We asked respondents, "Would this program be more or less acceptable if beekeepers did not have to pay a registration fee?" 25/803 (3.1%) reported "Way less acceptable," 47/803 (5.9%) reported "Slightly less acceptable," 292/803 (36.4%) reported "Neither more or less acceptable,"



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254/803 (31.6%) reported “Slightly more acceptable,” and 185/803 (23.0%) reported “Way more acceptable.”

We asked respondents, “Would you be willing to pay a voluntary one-time donation of \$X to subsidize a state-wide beekeeper registration and inspection program?” The donation amount was randomized to \$2, \$15, \$25, \$35, \$50, \$70, or \$100.

Respondents were willing to pay an average (mean) of \$48.73 to subsidize a state-wide beekeeper registration and inspection program.

Other comments about this policy:

Pro:

- If it helps prevent the spread of disease then it's a good thing/Disease control starts at prevention/ Diseases need to always be checked and rechecked to keep in check.
- If honeybees can negatively impact native pollinators, I think it is important to make sure bee keepers are doing their part in protecting them/ If it helps keep native pollinators healthy, of course this is a good idea/It's obvious that if bees are in serious decline since the 1980's, that our food economy and supply are in great danger. This is about the future world for our kids and those distant generations, not just today.
- If you are making money off the bees(honey)-you should be able to pay for it/ Beekeepers should contribute to the solution.
- If you bring a species not native to the environment you should be responsible for it
- The fee is not that high/OK with the program if the fee is not that high or if there is no fee
- It would help get more people involved with bees/ If this would encourage people to become beekeepers, it seems worth it
- honeybees are not native
- Ensuring bees are disease free and are actually doing what they should be doing is important/I think it's good to keep things in check and be mindful.
- this is great to allow more opportunities for research
- Other states have the registration fees. Why not us too.

Anti/Concerns:

- It would be a disincentive to beekeepers to maintain colonies/ I acknowledge that honeybees are non-native, but I wonder if a program like this might do more harm than good in discouraging community beekeeping which, I believe is still a net-positive activity despite its risks/ Beekeepers are already doing more than the general population, regulating them and making them charge is going to kill the business/Would make it harder to keep bees so less people may do it
- why do they need an inspection? beekeepers know what they're doing I imagine



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- Beekeepers should not have to pay or register it is just another way for government to get more money
- Beekeepers where I live move their hives in winter, sometimes to other states. What's the point of inspection in Colorado when hives are moving between states?
- Costs are very expensive for beekeepers and they need support from all of us.
- You should not have to pay a fee for promoting healthy life.
- Don't know that we need another government program/don't need more regulation
- It's walking a fine line with our supposed freedom's
- I understand the importance of preventing disease spread, but this seems like potentially too much red tape for small scale backyard beekeepers.
- I think fees should only be imposed if they are out of compliance and not properly caring for the colony.
- The beekeepers should have an input either way whether financially or not, because they are the ones helping the colonies to continue.
- Really need to learn more about effect on beekeepers and colorado honey business

Existing Program: Pollinator License Plate

Respondents were asked: "Currently, Coloradoans can fiscally contribute to pollinator conservation by making a minimum \$25 one-time donation to the People & Pollinators Action Network (PPAN) to receive a Pollinator License Plate. This donation is used by the PPAN to increase native pollinator habitat and fund educational programs that encourage native pollinator biodiversity. Would you be willing to pay a minimum \$25 one-time donation to receive a Pollinator License Plate and expand the PPAN pollinator habitat fund?"

412/803 (51.3%) reported "Yes," 365/803 (45.5%) reported "No," and 26/803 (3.2%) reported that they had already done this.

Would you encourage other people to purchase a Pollinator License Plate to support pollinator biodiversity?

570/803 (71.0%) reported "Yes," and 233/803 (29.0%) reported "No."

When asked to provide additional comments explaining their perspectives on this policy, respondents shared the following arguments in favor (pro) or in opposition to the policy:

Pro:

- Help pollinators, the environment, future food
- I don't believe in telling people what to plant and what not to plant but offering a license plate for people to purchase on their own gives them a good option.
- Most people can afford the \$25



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- Great way to get the word out and raise money/fast and easy way to raise awareness and funds
- I think it's a low barrier to entry for people that want to support and may not know the full scope of native pollinators.

Anti/concerns:

- Cannot afford (e.g., “Unfortunately I'm on a fixed income and in the current economic climate, \$25 is a lot to part with and it would be hypocritical of me to ask others to contribute when I'm unable to do it myself”)
- Already have a special license plate (e.g., handicap license plate, “because there is a dinosaur plate,” or “I support the program, but my license plate is "support shelter animals" because we have a rescue cat and dog. Otherwise, I would get a pollinator plate.”)
- Concern about how much actually goes to pollinators, don't know impact on pollinators (e.g., “How much of that money actually goes to PPAN? By the time you figure the cost of the license plate, salaries for the people who run the group, overhead expenses, I would be willing to bet that PPAN only get cents out of this.” Or “would have to see how much of each \$ actually goes to the insects etc vs salaries etc”)
- Don't own a car
- Already pay enough taxes which should be used for programs like these
- Distrust of government (e.g., “Because it is proven the government just misuses the funds for anything they choose and adjust the books to cover the theft”, “I work for a local government within Colorado and funds donated are never used for their intended purpose so I'm apprehensive about donating at the state level”)
- Would rather have people directly donate however much money they wanted to the PPAN/ would donate, if I could, but not to get a license plate/don't want a license plate
- Think poverty is more important right now/don't have enough money for food right now
- Charge of \$25 is too high, and plates are already too expensive
- Not familiar with PPAN

We asked respondents, “Are there any programs you know of that are being implemented by local organizations or your local municipality (e.g., your town, county, or district) to effectively support pollinators? If so, please describe below.”

- They don't cut down milkweeds for the monarchs
- Metrowest conservators native pollinators task force
- the Native Plant Society in Colorado does educate and encourage planting of native plants and sponsor some plant sales.
- I know there's a lot of people planting native flowers in public and private spaces
- The only ones I am aware of are my local community limiting use of certain pesticides in city-owned land like parks.



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- Denver botanic gardens supports this kind of work
- Locally we have a bee keeping group that does meetings. I have always dreamed of being a bee keeper and there needs to be more public outreach for spreading information.
- Community Gardens Consumption Literally Projects teaches youth how to compost and about worms and bees.
- Local pollinator clubs
- City of Edgewater provides a 'garden in a box" to residents who want one.
- There are programs to plant trees in their natural environments
- There is a city parks area near me that they let grow wild, but then they mow it down a couple of times per year.
- We have a bee keeper club here in Brighton where I live. They have done amazing things teaching people about different types of pollinators, specifically honeybees and bumble bees. They also do a lot of talks about bats.
- Pollinator gardens
- OEFI - Pollinator Habitat Program – CDFA
- Public bee hives
- think they've offered tax breaks to beekeepers
- Keep America beautiful garden
- Garden clubs
- Beekeepers for America
- Seed bombing programs
- have school kids plant trees
- Ballot issue allows homeowners to keep bees
- We voted in our district to turn an old golf course into a park and plant native plants
- I know that butterfly pavilion offers some sort of support program that I have donated to.
- The creation of open space boundaries for development and eliminating pesticides on properties adjacent to agricultural lands.
- I think the county extension office has programs to follow
- Honey vendors supporting local bee keepers.
- Landscaping program and harden in the box
- Pollinators R us!
- Members of our local farmers market offer seeds to support pollinators
- There are a few neighborhoods that plant gardens to support pollinators.
- There's a pollinators team and they help with colonies and make more honey by taking care of bees
- FFA
- "Saving the bees" is an international online sensation that will travel anywhere in the United states or locally to save the bees



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We asked respondents, “What, if anything, do you think your local municipality should do to support pollinators in your community? Please describe below.”

- Provide free resources, incentives, and guidance on how to help pollinators
- Tax incentive/tax breaks for actions that support pollinators/ Tax credit for purchasing anything that supports pollinators
- avoid pesticides that harm pollinators/Stop spraying pesticides/Reduce pesticides
- Change the Fogging pesticide to one that is not toxic to them. Their pesticide fogging here has already killed off all the hives people had within a 10 mile area.
- I like all the programs you have listed here and I would like to see them implemented here/ Everything that has been described as a possible plan through this survey would be helpful.
- lobby to access some of the Marijuana tax revenue for these projects
- landscape with native plants
- education and activities around growing and cultivating native plants/ Encourage residents to plant native plants in their yards and participant in No Mow campaigns/ Providing funding for native plant installation/ perhaps have an annual sale of native plants at reduced prices/ No tax on purchase of native plants./ Provide a list of nurseries that sell native plants and maybe a credit/tax deduction for buying native plants/ Provide lists and access to native plants to support pollinators/ Giving away free native plants in the important planting times for said species
- Practice organic gardening
- Schools should be encouraged to educate students about pollinators and their importance to Colorado as part of their curriculum; perhaps even keep a hive or two as a science project.
- Conduct research on this topic
- Allow residents to keep bees/ Allow free, non-taxed bee keeping/support beekeepers
- Plant pollinator gardens/ Local parks need to have areas designated for pollinators with appropriate plants and no pesticides/ Have designated pollinator areas in public parks and open spaces.
- Do not allow spraying of pesticides in school, playground and common open space areas (parks, trails, etc.)
- Make certain pesticides illegal / Should require no pesticides on lawns/ pass more legislation banning neonicotial pesticides
- Plant wildflower seeds along highways and refrain from mowing
- Give away seeds
- Green infrastructure projects, living roofs
- No Spray Zone in the entire county
- Support the planting of pollinating plants on roadsides and in roadside dividers/I think the city of Grand Junction could use more native plants in the medians here when they reconstruct roads and build new community parks/ implement roadside plants



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- Educating the public about pollinators
- The town could start by halting the annual mosquito spraying and seeking other mosquito solutions instead.
- Implementation of rules and regulations that protects pollination/ I think the insecticide policies should be implemented. Or rather the dictation of where and what they can be used on
- Regulate hives/ I think a registry of beekeepers is extremely important, especially if municipalities are expected to support them/ Implementing regulations and regulations for bee keepers would be a great way to protect native pollinators
- Cover cost or reimburse homeowners for relocating honeybees on property
- Quit building/ less commercial building development
- Get rid of invasive plants
- Provide safe places where birds can nest and bees can safely build hives/ A volunteer program to build bee houses and create nesting places for pollinators/Encourage bat houses on private property
- Encourage HOAs to either enable wildflower planting around homes, or establish areas where pollinators are safe
- They should create taxpayer funded programs/ I wouldn't object to a portion of taxes going to this cause.
- Encourage beekeepers to use native species
- Building impact tax/ Have new construction pay fees to offset pollination disruption/ Make it a law that all new builds and current builds need to save 30% of their build for plants.
- leaving plant stems fallen logs or stumps for bees beetles and flies to use for nesting
- Support urban gardening
- Remove requirements for so much grass
- More openness to unmowed lawns
- Require native species in landscape regulations for development proposals. Require plant materials that are based on CSU extension recommendations.
- Offer community classes on how to tend to bee hives & harvest honey
- I think Universities should be advocacy groups to inform public of benefits to municipalities and home owners in support of pollinators. If Universities sell the facts people will respond.
- Plant native plants around all government buildings.

References

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