

Humane and Effective Rodent Control: A Proposal to the LPC Facilities and Sustainability Committee

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Content Warning

This slideshow contains photos of deceased animals. The photos are intended to document the impacts of the current pest control regime.

All photos are by the author (Amber Kerr) and are unmodified from their original format.

Disclaimer of Competing Interests

Although I am drawing upon my training in biology, I am presenting these ideas as an individual, not on behalf of the whole Biology Department.

I have no personal or financial relationship with either of the companies mentioned in this presentation (AAI Pest Control or Senestech Inc.)

Problem 1: LPC's current **waste receptacles are not animal-proof**. Their insecure design encourages animals to seek food.

Animals I have seen interacting with trash in or near LPC's outdoor bins:

- *Rats*
- *Mice*
- *Tree squirrels*
- *Ground squirrels*
- *Crows*
- *Scrub jays*
- *Turkeys*
- *Sparrows*

American crow outside Building 1850, April 25, 2024





Malfunctioning waste receptacle outside LPC Copy Center,
Apr. 14, 2023 (the doors were open when I found it)

Close-up of inside a waste receptible
outside Building 1850, Mar. 23, 2023
(showing rodent droppings)



Problem 2: LPC's current solution, contracting with AAI Pest Control to place **poison bait stations** around campus, is **inhumane**.



AAI bait station outside Building 1800, Feb. 29, 2024

- AAI used to deploy anticoagulants such as difethialone and diphacinone, now illegal. AAI now deploys **cholecalciferol**, which is still legal but causes **extreme suffering** to animals that ingest it.
- **Cholecalciferol kills** via tissue calcification and kidney failure, causing severe pain, weakness, nausea, extreme thirst, convulsions, and paralysis. Death occurs **after an average of 8 days**.
- Many times, my Biology students and I have witnessed the suffering and death of animals who ingested this poison.

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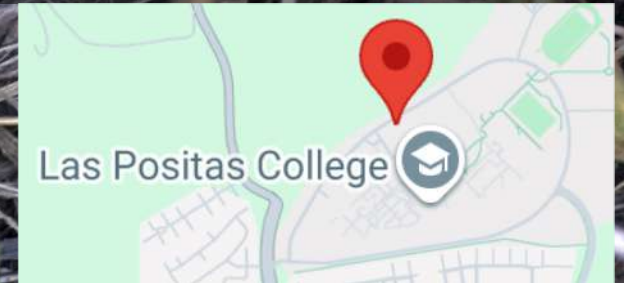


Recently deceased roof rat, LPC Native Plant Trail, April 25, 2024
(my students and I encountered it during fieldwork, and buried
its body to protect other wildlife)

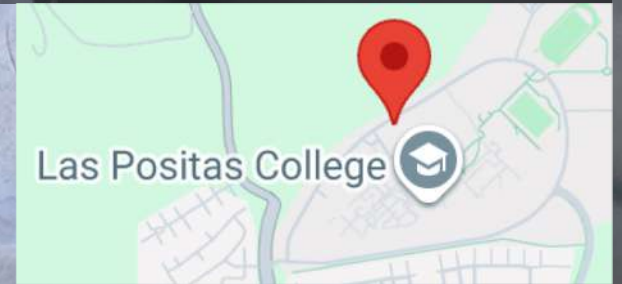
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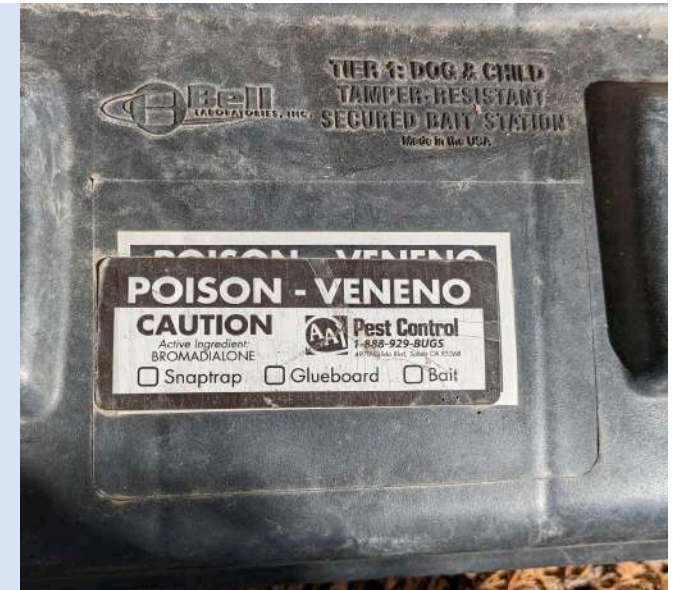
Recently deceased roof rat, experimental garden bed outside Building 1850, May 19, 2026
(my students and I had found it alive but immobile on May 13)



To continue using our experimental garden, I had to extract and dispose of the dead rat, and warn students to not to come in contact with the area where it died (May 19, 2026).



Problem 3: Poison bait stations are **ineffective**. They do not eliminate the animal population nor solve the underlying reasons for human-wildlife conflict.



AAI bait box outside Building 400, Apr. 13, 2023 (bromadialone was banned Jan. 1, 2021)

- *If the goal is eliminating the population:* Bait stations fail because they **cannot curtail wild reservoirs** of the population beyond the campus borders. More animals will always come.
- *If the goal is eliminating spread of disease:* Bait stations fail because **rodents weakened by poison are more likely to carry diseases** that can be passed to humans, not less.
- *If the goal is preventing human-rodent contact:* Bait stations fail because they **force us to interact with sick and dying animals**.

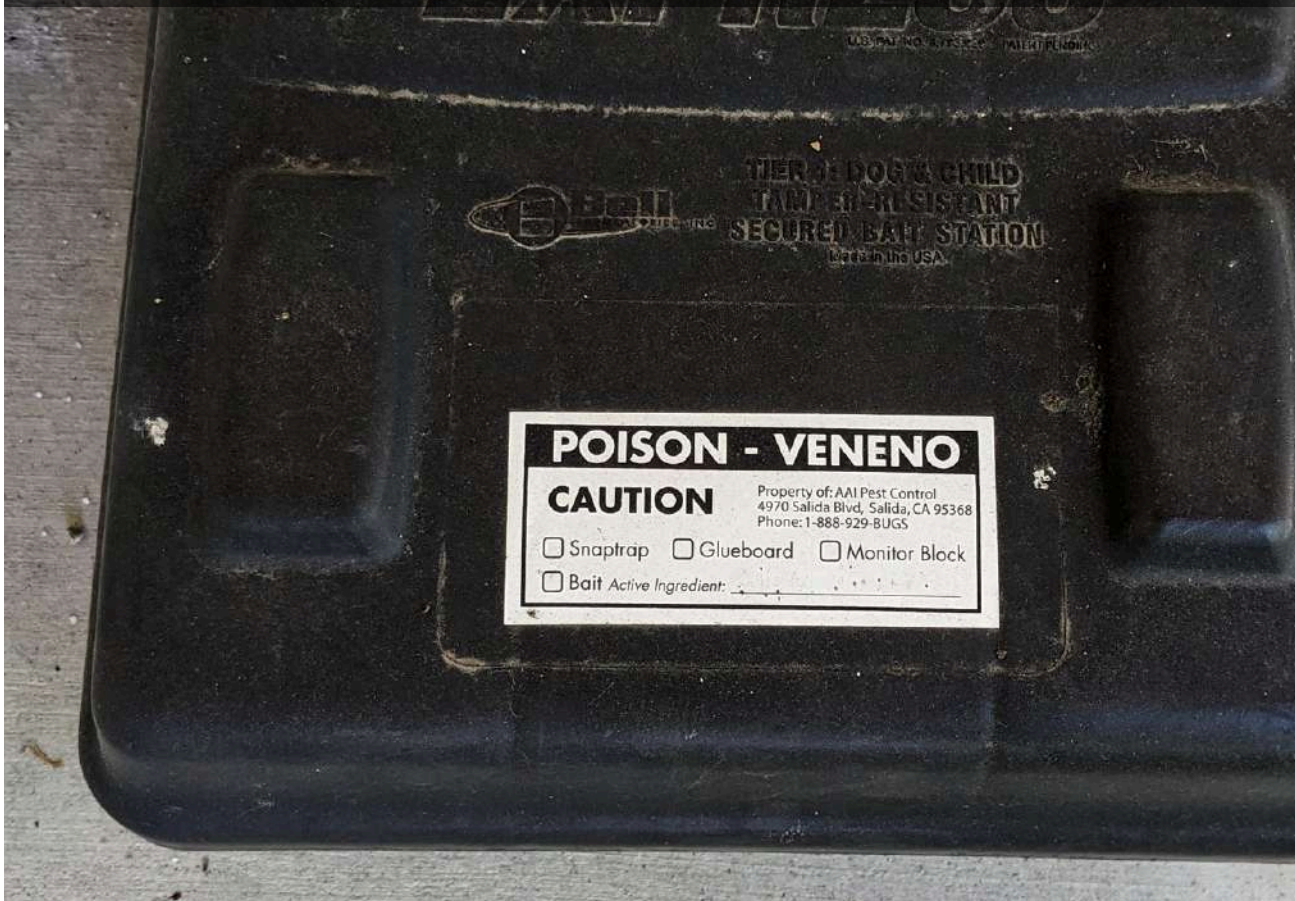
Problem 4: AAI has a history of sub-par service to LPC, including **non-compliance** with relevant California laws.

Issues I have observed and documented with AAI bait stations on our campus:

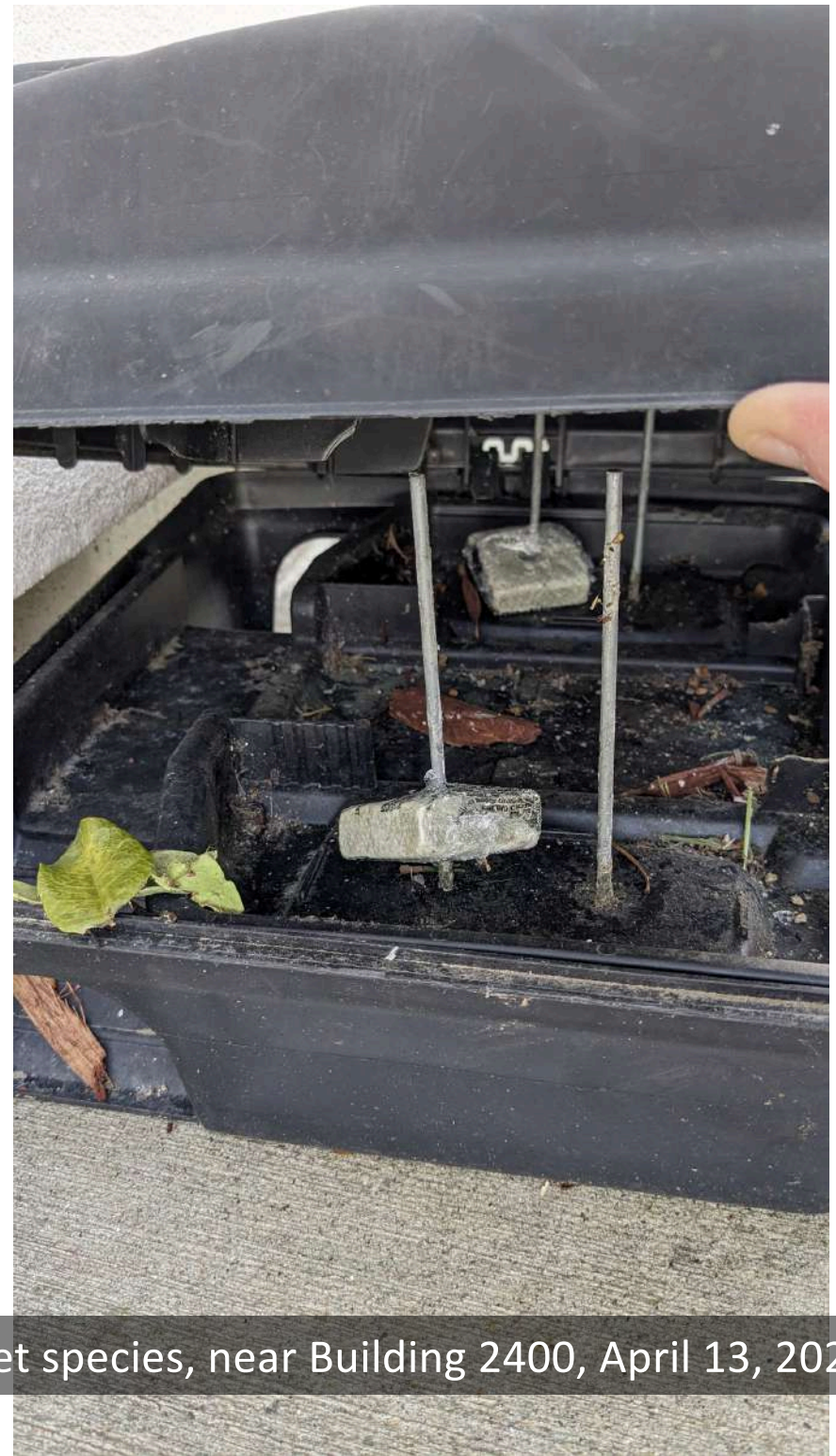
- ***Missing or illegible labels***
- ***Insecure bait stations that are falling apart and posing a risk to non-target species***
- ***Continued use of **banned poisons** years after they became illegal***
- ***Inaction on fixing these problems months after they were reported***
- ***Ineffective fixes such as labels that immediately fell off***

Detailed documentation is in an email thread between myself, Walter Blevins, Owen Letcher, and Anette Raichbart from 2/16 to 4/28/2023.

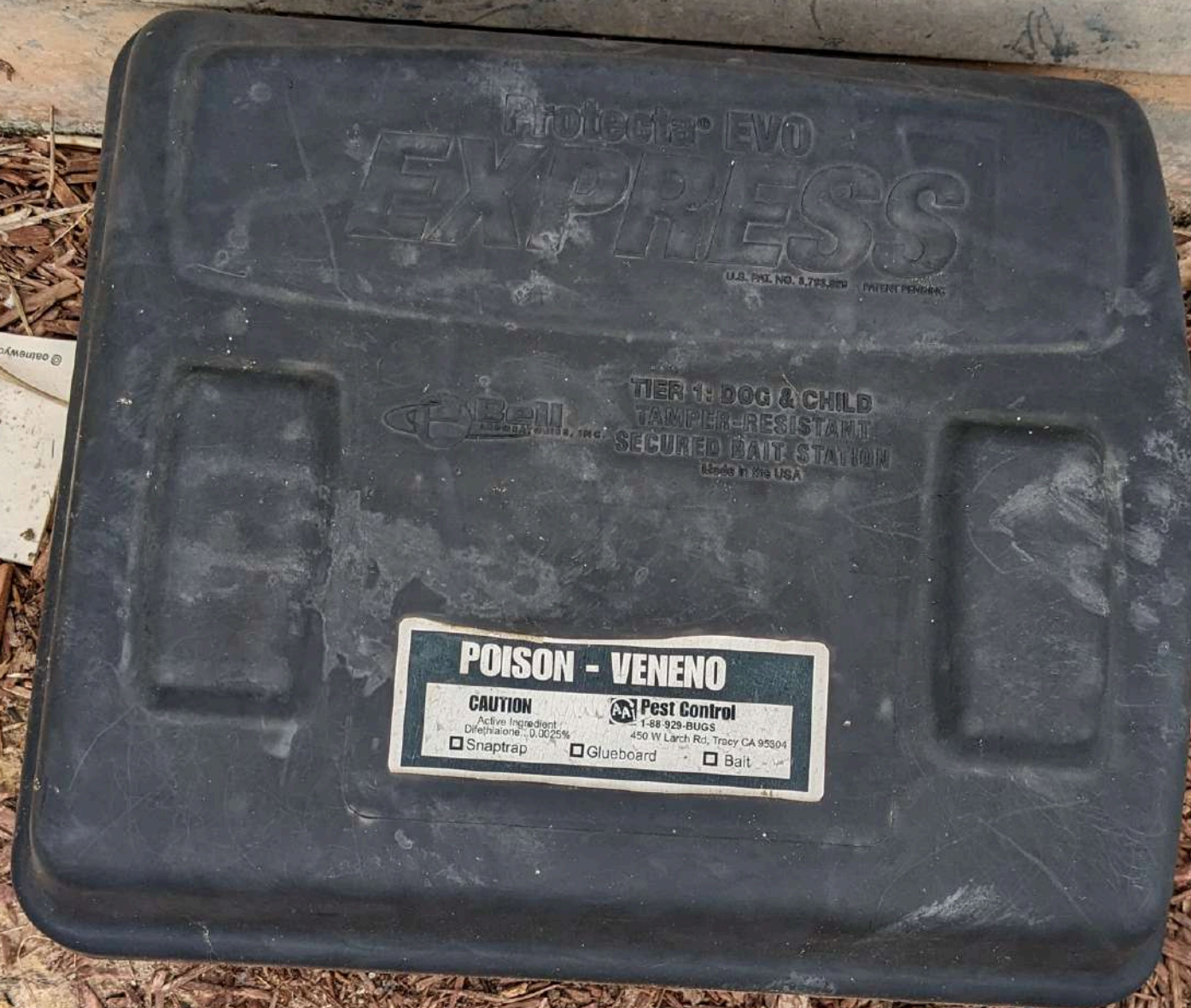
AAI bait box with illegible label outside Building 1700, Apr 27, 2023.
CA Dept of Pesticide Regulation says: "in violation of FAC section 12973, "Use in Conflict with the Label" or 16 CCR section 1983."



AAI bait box with old and new labels that are both illegible
(outside the Library, Building 2000, Mar 21, 2023)



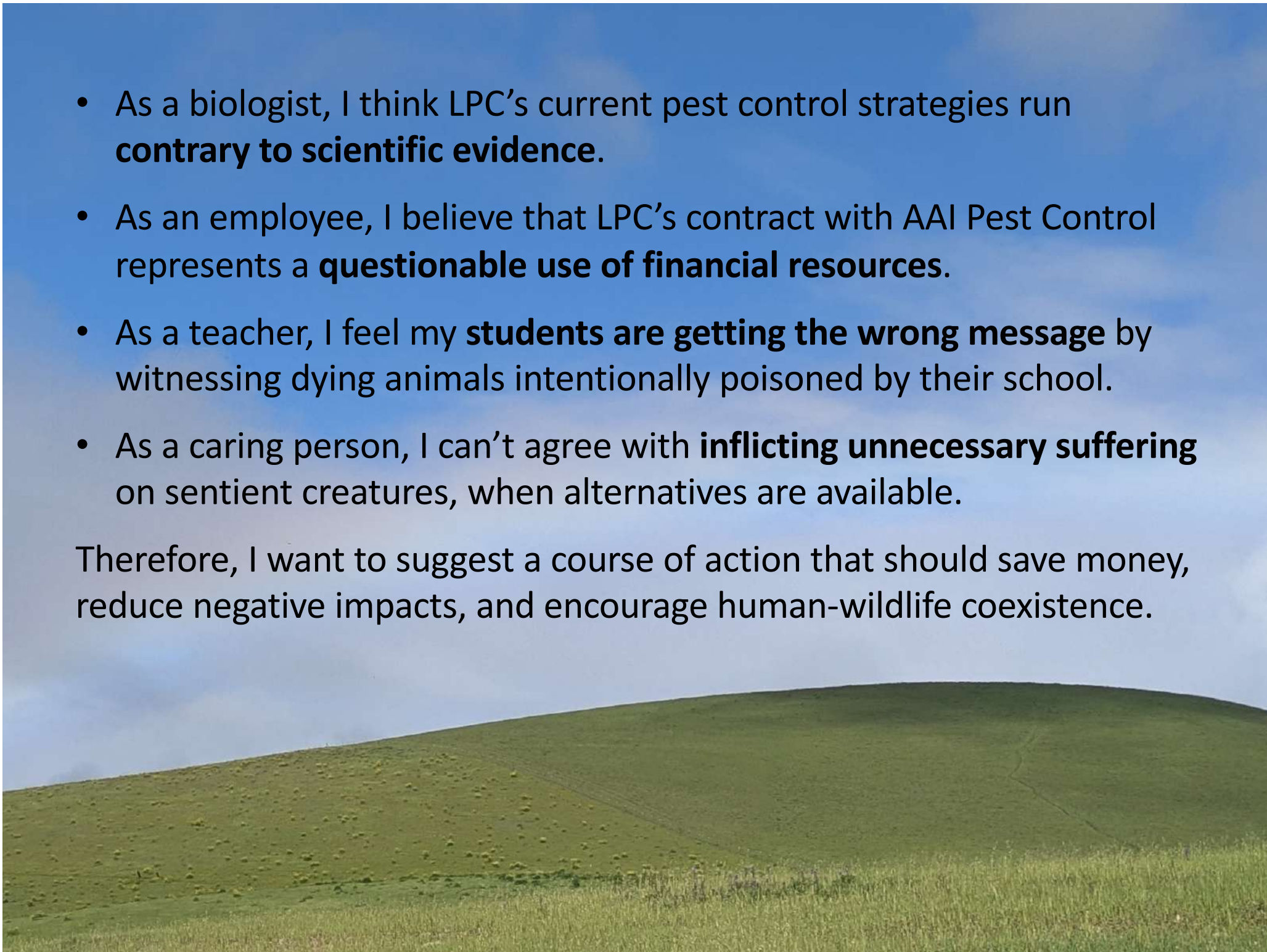
Unsecured AAI bait boxes posing a risk to non-target species, near Building 2400, April 13, 2023.



AAI bait box labeled as containing difethialone (a second-generation anticoagulant) even though it has been illegal under CA law since Jan. 1, 2021. Taken near Building 1000 on May 4, 2023.

- As a biologist, I think LPC's current pest control strategies run **contrary to scientific evidence**.
- As an employee, I believe that LPC's contract with AAI Pest Control represents a **questionable use of financial resources**.
- As a teacher, I feel my **students are getting the wrong message** by witnessing dying animals intentionally poisoned by their school.
- As a caring person, I can't agree with **inflicting unnecessary suffering** on sentient creatures, when alternatives are available.

Therefore, I want to suggest a course of action that should save money, reduce negative impacts, and encourage human-wildlife coexistence.



Proposed Solution 1: Expedite replacing outdoor waste receptacles (outdoor bins should be a higher priority for replacement than indoors).



- New bins have been discussed for years and are finally funded and purchased, but deployment is **slow**.
- Because the **outdoor** bins are aesthetic liabilities and possible health hazards, I propose they be first in line for replacement.
- More **vigilance** by groundskeepers would also help (see photo: outside Building 1850 on Sep. 3, 2025).

Proposed Solution 2: **End the contract with AAI Pest Control** as soon as possible.

Proposed Solution 3: Replace poison bait stations with **humane birth control stations** (Senestech Inc.)

***Senestech** is an American company founded in 2004 by two woman scientists who realized that their fertility research – using mice as models for human menopause – offered an innovative and humane alternative to rodent poison.*

- ContraPest and Evolve baits **cause infertility in rats and mice**, but does not kill or sicken them.
- The mode of action targets **gametogenesis in murine rodents**; it is harmless to non-target species and does not bioaccumulate.
- Recognizing its safety, EPA rates it a “**Minimum Risk**” pesticide.



Humane Design

Prioritizing ethical rodent population control.



Non-Bioaccumulative

Doesn't impact non-target species or travel up the food chain.



No Adverse Health Effects

Ensures rats remain unaffected, avoiding neophobia or bait aversion.

Rat Birth Control



Targeted Efficiency

Reproduction rates, a fundamental factor in rat infestations.



Prevents Rebound Effect

Halts rats from breeding back to original colony sizes post-lethal control.



Irresistible To Rats

Formulated with fats and sugars, it remains enticing even in food-rich environments.



Proven Efficacy

Integrated Pest Management studies reveal over 90% reduction in rat populations, sustained over time.

Even if campus leadership opts not to try Senestech products, I believe that **terminating the AAI contract even *without a replacement contract*** would be better than taking no action.

A tenet of **Integrated Pest Management (IPM)** is that **you cannot expect to control rats with a simplistic attempt to kill them** once they are already a problem (UC ANR, 2025).

Instead, you must understand the root cause. **What resources** they are seeking? How can human infrastructure be **fortified against** them? What forces **naturally control** their population?

WE are causing LPC's rodent problem by continuing to use unsecured waste cans outside. Attracting animals by being careless with our waste, and then poisoning the animals on an ongoing basis, is **inhumane and futile. We can do better.**

References

- Symptoms caused by fatal ingestion of cholecalciferol (slide 6):
<https://www.vpisglobal.com/wp-content/uploads/2021/04/Vitamin-D-toxicosis-for-vets-paper-FINAL.pdf>
- Average time to death after cholecalciferol ingestion (slide 6):
<https://pmc.ncbi.nlm.nih.gov/articles/PMC9938244/>
- Poisoned rats are more likely to carry disease (slide 10): Murray & Sanchez 2021, *Biol. Lett.* <https://doi.org/10.1098/rsbl.2021.0311>
- Second-generation anticoagulants have been banned in CA since 2021 (slides 10, 14): <https://www.cdpr.ca.gov/cac-letter/new-second-generation-anticoagulant-rodenticide-prohibitions-and-allowed-uses-questions-and-answers/>
- Illegal to deploy unlabeled or mislabeled bait boxes in CA (slide 12):
<https://www.law.cornell.edu/regulations/california/16-CCR-1983>
- Poisoning alone is unlikely to control rat populations (slides 10, 19): UC ANR, 2025. <https://ipm.ucanr.edu/home-and-landscape/rats/>
- Senestech product claims (slide 18): <https://senestech.com/>

AI statement: No generative AI tools were used for this presentation.