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(Red shouldered hawk, Barred owl, Great horned owl – Actual Victims of Rodenticide Poisons)

What are we trying to accomplish?

We have 2 major goals, both of which pertain to stopping the huge death toll inflicted upon wildlife who consume rodenticide poisoned rodents.
Specifically, we are striving to 1) BAN Second Generation Anticoagulant Rodenticides (SGARs) in CT and 2) Restrict First Generation Anticoagulant Rodenticides (FGARs) on State Owned Property.

Understanding the terms

First Generation Anticoagulant Rodenticides (FGARs), such as warfarin, diphacione, and chlorophacionone, work by thinning the blood and cause the targeted animal to slowly bleed to death. It may take multiple feedings of a FGAR to reach a lethal dose but is cumulative. When a poisoned rodent starts to succumb to the rodenticides, it behaves in a delayed and disoriented manner and becomes an easy target for predators who then consume the poisons secondarily after ingesting the rodent. The result is both the targeted and non-targeted animals are poisoned by these rodenticides.

First Generation Anticoagulant Rodenticides began to lose their effectiveness as rats and mice developed resistance to them. This necessitated the development of potent alternatives, which took the form of Second Generation Anticoagulant Rodenticides. SGARs share a similar mechanism of action but have an increased toxicity and prolonged half-life, which means the first dose is more poisonous and their toxins remain in the environment longer. Second Generation Anticoagulant Rodenticides contain the active ingredients brodifacoum, bromadiolone, difenacoum, or difethialone.

As a result of our intended legislative ban, the professional and agricultural use of Second Generation Anticoagulant Rodenticides containing these four active ingredients would be banned statewide and the use of First Generation Anticoagulant Rodenticides on state owned properties which include wildlife habitat, would be eliminated as well.

Why are we doing this?

We are seeking a stronger measure to protect children, pets, and wildlife from unintentional rodenticide poisoning by banning their use and sale. Predators such as hawks, owls, eagles, vultures, coyotes, bobcats, raccoons, foxes, mountain lions, succumb to secondary poisoning after consuming poisoned rodents, which are their natural prey. Wild animals are also poisoned when they directly consume the bait, as are children and household pets. Rodenticides are counterproductive to rodent control by poisoning, harming, and killing the natural predators that help regulate rodent populations throughout Connecticut.

Toxicity is one component of the rodenticides' efficacy in animals. Due to their mechanism of action, there is a delay between consumption of a lethal dose and death of the exposed organism. The target animal consumes the bait and in the case of an SGAR, this allows the super-lethal concentration of the rodenticide to accumulate in its body before it succumbs. This poisoned rodent does not immediately die, so it can return to the environment where it will become easy prey. Secondary or non-target wildlife poisoning occurs when non-targeted wildlife feeds on the targeted pest that is now carrying a much higher lethal dose.

Since SGARs remain longer than FGARs in the livers of poisoned animals, the animal that ingested the anticoagulant can potentially carry that compound for years, as compared to days or months for an FGAR.

Does science uphold the damaging impact of rodenticides?

Scientific research and studies have found rodenticides in over 75 percent of wild animals tested. These rodenticides lead to direct mortality and chronic long-term health impacts for natural predators, endangered species (such as CT's Barn Owl), and other wildlife. Recent studies are showing that fox and coyote who have ingested anticoagulant rodenticides even indirectly have severe health consequences, such as routinely developing mange.

Dr. Maureen Murray, Director of TUFTS University Wildlife Clinic and clinical Associate Professor at Cummings School for Veterinary Medicine in our neighboring State of MA, has been studying rodenticide exposure in birds of prey for over a decade. Dr. Murray has witnessed an alarming increase in the number of birds of prey that come into Tufts Wildlife Clinic with rodenticides in their systems-some at fatal levels. "One hundred percent of the red tailed hawks in the present (2020) study tested positive for exposure to anticoagulant rodenticides," said Murray. "In my 2017 paper, 97 percent of the hawks tested were positive, which is very high. But still, 100 feels like a more dramatic number."

The study, published in Environmental Toxicology and Chemistry, also found that 91 percent of the birds tested positive for two or more different types of anticoagulant rodenticide, with the second-generation(SGARs) brodifacoum, bromadiolone, and difethialone found most frequently.

Damaging impact of these rodenticides experienced here in Connecticut

A Place Called Hope has also been dealing with secondarily poisoned birds of prey at an alarming rate. Depending on the season, we have seen up to three suspected cases per day. We have recently collected funds to have necropsies and toxicity panels done on birds we suspect have been poisoned for scientific record. So far, the results are all proving to be 100% positive for rodenticide poisoning on the cases submitted for testing.

Since alternatives to poisons exist, we feel this ban is more than justified. By taking an integrated pest management approach, such as excluding the "pests" from areas they are not welcome, removing food and water sources (which attract them), cleaning out nesting sites, putting up raptor nesting boxes, using live or snap traps, etc. one can effectively mitigate rodent problems without the use poisonous rodenticides.

It is our goal to see our progressive State of Connecticut keep up with the current progress noted in our neighboring states of Massachusetts and New Jersey who are following California's groundbreaking lead on banning SGARs statewide.

(Barn Owl – Dead on arrival – Rodenticide victim)