

Update Feb 2021 --- Risks to Raptors from Anticoagulant Rodenticides
by Scott Thomas (Photos: DeeDee McGann)

Anticoagulant Rodenticides and New Laws

In the 2010, in the May issue of the Tattler, Scott Thomas and the Conservation Committee presented an article about our then growing concerns of the serious impacts to raptors from anticoagulant rodenticides (Rat Poison Kill Hawks). In the following years, mountains of data, scientific publications, and even our own research surfaced that left little doubt about the alarming and significant impacts of poisoning from anticoagulant/rodenticides to raptors, mammalian predators, and even pets.



In recent years, several legislative bills in California aimed at significantly curbing the use of the most dangerous chemicals were introduced. On September 29, 2020 Governor Gavin Newsom signed into law AB 1788, "The California Ecosystems Protection Act," which puts a moratorium on the use of worst types of anticoagulant rodenticides.

What are Anticoagulant Rodenticides?

Anticoagulant/rodenticides (ARs) are blood thinners that inhibit the ability of an animal's blood to clot properly, which when used as rat poison, causes uncontrolled bleeding or hemorrhaging. This is accomplished through a reduction in the intake of certain forms of vitamin K which are essential to the clotting process. ARs cause an over accumulation of the inactive forms of the vitamin which in turn reduces the intake of crucial, active forms of Vitamin K. Hemorrhaging of internal organs causes severe illness and death.



Anticoagulants have been around for a long time. Warfarin and other similar compounds were first introduced in the 1940s and 1950s for human medical purposes and are still in use today as blood thinners. They were also recognized for their potential as an alternative to really bad chemicals like strychnine for pest control. The early formulations of warfarin-based rodenticides are called "first generation anticoagulant rodenticides" (FGARs). For some time, FGARs were fairly effective at killing rodents, but rodent populations became resistant, and newer more complex compounds were introduced known as second-generation anticoagulant rodenticides (SGARs), including the products; brodifacoum, bromadiolone, difenacoum, and difethialone.

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Secondary Exposure

Although birds, including raptors, have never been the targets for SGARs and they rarely ingest them directly, raptors do suffer from high rates of exposure to SGARs through secondary poisoning (consuming rodents that have ingested SGARs as bait).

We now know, without any doubt, that secondary exposure to SGARs is wide-spread and can be found in every species of raptor in the United States and every mammalian predator. The full impact on raptors from SGARs at the population level is still not fully understood, but we do know the problem is widespread and very significant at local levels is killing and injuring raptors and other predators everywhere across the country.



Next Steps

AB 1788 puts a moratorium on the use most of SGARs in California, except for in cases of bonified human health emergencies and for scientific and conservation purposes. The bill gives the California Department of Pesticide Regulation and others time to further study the efficacy (or not) of SGARs, the impacts of their use to predators and other wildlife, and time to study how banning them might impact the economy. So, while the passing of AB 1788 is great news for raptors now, the job is not done. There are strong supporters of SGARs out there, especially in some agriculture sectors. We know they went to work right away trying to find a way to bring SGARs back despite the risks to wildlife. Audubon and others, such as the leader in this fight Raptors Are the Solution (RATS), still have a long way to go before we bring a final end to the use of SGARs.

For more information about RATS (a great organization) go to:
<https://www.raptorsarethesolution.org/>