Poison Control

New rodenticide regulations protect raptors and could save seabirds.

**By Susan Cosier**

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n June the EPA announced that it will ban the sale of four particularly potent rodent poisons in retail stores because they’ve proven harmful to people, pets, and wildlife. Professional exterminators, farmers, and government agencies will still be able to use the rodenticides, which some 15,000 children a year are exposed to, poison control data shows.

The new regulations could help prevent “off-target” deaths while still allowing wildlife managers to employ the poisons as highly effective conservation tools. To safeguard species like great horned owls, red-tailed hawks, bobcats, and kit foxes, farmers must isolate the rodenticides in bait stations. Federal wildlife managers can continue using the poisons only for conservation efforts, such as protecting seabird nesting sites from invasive rodents.

“I think we have a broad contamination of the food chain,” says Pierre Mineau, a pesticide ecotoxicologist at Environment Canada’s National Wildlife Research Centre and a leading expert in the field. In a study that examined 270 birds of prey, Mineau and his colleagues found that as many as 11 percent of great horned owls are at risk of being indirectly killed by these rodenticides. “Yes, they work like gangbusters,” says Mineau, “but do we really need to use that much of a powerful tool?” The chemicals—brodifacoum, bromadiolone, difethialone, and difenacoum, which are found in products like D-Con—are second-generation anticoagulants that kill by causing fatal hemorrhaging. They are far more toxic than older poisons.

Ironically, for this reason, they’ve played a role in some of the most dramatic conservation successes in recent history, says Greg Butcher, Audubon’s director of bird conservation. On New Zealand’s Campbell Island, California’s Anacapa Island, and more than 100 other islands worldwide, wildlife managers have resorted to the poisons to eliminate rats.

The U.S. Fish and Wildlife Service is considering using the rodenticides on California’s mice-infested Farallon Islands, nesting grounds for more than half of the world’s roughly 7,500 breeding ashy storm-petrels. The California Department of Fish and Game lists the bird as a species of special concern because its limited range makes it susceptible to oil spills and predation by rodents, cats, and other animals. “We want to keep species off the endangered list,” says Gerry McChesney, manager of the Farallon National Wildlife Refuge, adding that removing mice from the Farallon Islands will help do just that.

Barn owls that happen upon the islands during migration linger there because of the mice, likely introduced by sailors in the 1800s. The owls devour the rodents until their numbers naturally decline each winter, and then switch to embattled seabirds like the petrels. Wildlife managers have tried relocating some of the birds, but it’s very labor intensive and hasn’t solved the problem.

Now they’re planning a mouse eradication project, and rodenticides will be an option in the environmental impact statement due this fall. “It’s really important to have rodenticide available for bird conservation,” says Butcher. “Getting rid of rodents on the Farallon Islands is probably the number one thing we can do to help that species. You can trap rodents until the cows come home without ever really getting rid of them.”

Any rodenticides will be used with caution, says McChesney. For his part, Mineau hopes his findings will influence regulators, but also supports use of the chemicals for conservation: “It’s one of those situations where you say, I’m going to accept some impact for the greater good.”