San Jose Mercury News

WEDNESDAY
January 26, 2005

Get the lead out of ammunition

POISONING THREAT STILL ENDANGERS SURVIVAL OF CALIFORNIA CONDOR

By Noel Snyder

Twenty years ago, the California Fish and Game Commission wisely approved the capturing of the last wild California condors for breeding in zoos, largely because of a lead-poisoning threat that was evidently driving the last wild birds rapidly toward extinction. This threat was traced to ammunition fragments in carrion eaten by condors, especially in unrecovered carcasses and gut piles of animals shot by hunters.

Condors are highly sensitive to lead ammunition poisoning -- a single shot pellet is lethal if fully absorbed. Bald and golden eagles also suffer chronic mortality problems with lead ammunition poisoning, as do trumpeter swans. Non-lead shot has been required nationwide for more than a decade for waterfowl hunting because of widespread waterfowl deaths and secondary poisoning of eagles preying upon waterfowl.

Lead poisoning can also cause severe human health effects. Surprisingly small amounts can kill you, and sublethal effects range from paralysis and seizures to long-term mental impairment, miscarriage and impotence. Accordingly, lead has been eliminated from gasoline, paint and plumbing. Lead ammunition remains one of the last forms of this deadly material not yet fully controlled. Those who eat game killed with lead ammunition unnecessarily risk eating small lead fragments and dust, very often without being aware of the health penalties involved.

Fortunately, captive breeding of condors in lead-free environments has proved highly successful, and condors have been released back into the wild since the early 1990s. But because lead ammunition is still widely used in hunting, efforts have been made to encourage the birds to limit their feeding to artificially supplied clean carcasses.

At first, released condors dined almost exclusively on the clean carcasses provided; but by 1997 they were also taking other foods, and lead problems resurfaced. Since then, five reintroduced condors have died from lead poisoning and more than 30 others have been retrapped for emergency detoxification treatments to prevent their deaths.

Alarmingly, two-thirds of all released condors have suffered significant lead contamination and over one-third have experienced acute lead poisoning. In addition, condors surviving lead exposure are probably suffering long-term intelligence and coordination deficits, increasing their susceptibility to other mortality threats.

Clearly, the provision of clean carcasses has proved an inadequate means to solve the lead problem, and increasing mortalities are likely as released condors forage more widely. The California Department of Fish and Game and the U.S. Fish and Wildlife Service's Condor Recovery Team published reports in 2003 concluding that the condor recovery effort cannot truly succeed until lead poisoning is effectively addressed.

Fortunately, non-toxic ammunitions are becoming increasingly available, including all-copper bullets of many calibers and bullets with lead cores entirely encased in steel. These bullets perform as well as or better than lead bullets and apparently pose very low hazards of secondary toxicity to condors and other scavengers.

Effective, affordable lead-free shotgun ammunitions have been available since lead shot was banned for hunting waterfowl. While ammunition prices are still somewhat higher for some non-toxic bullets than for comparable lead bullets, price differentials will inevitably decline as new ammunitions come into widespread use.

Given what we know, it is surely time to stop exposing our nation's most imperiled wildlife to the toxic effects of lead ammunitions. Conser-

vationists, wildlife biologists and hunters recently petitioned the commission to immediately require non-lead hunting in the California range of the condor and to eventually phase out all lead ammunitions statewide.

The commission, which will consider the issue Feb. 4, has the opportunity not only to continue its dedicated efforts to conserve the condor but also to remove the threat of lead contamination to other wildlife species and, indeed, to ourselves as well.

NOEL SNYDER is a retired evolutionary biologist and was the field leader of the Condor Conservation Program for the U.S. Fish and Wildlife Service from 1980 to 1986, when the condor lead problem was first discovered. He is co-author of ``The California Condor, a Saga of Natural History and Conservation.'' He wrote this article for the Mercury News.