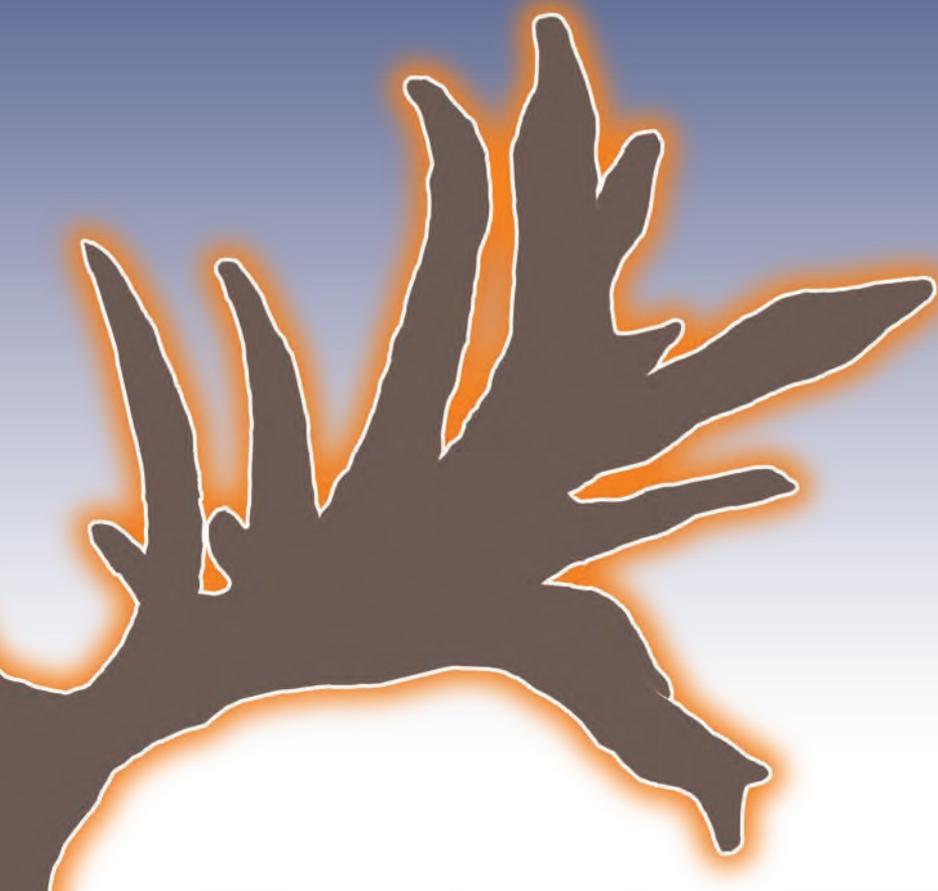




# FRANKEN-



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# -DEER

BY LISA DENSMORE BALLARD

**How genetically manipulated  
animals and canned hunts threaten  
North American hunting**



About 20 years ago, scientists employed by a multi-national agricultural company genetically engineered the “perfect pig” for the American pork market. It had huge, tender hams; meaty, flavorful bacon; and ribs so large and juicy that they practically melted off the bone.

There was only one problem: The pig’s legs were so short it couldn’t walk.

Therein lies one of the key issues with genetically altering animals. By selecting for one trait, you might end up with other, less desirable ones. In addition to physical deformities, another common side effect of engineering animals is weakened resistance to disease. One or both of these disadvantages reduces an animal’s ability to survive in the wild. If it can survive, such an animal might have an unexpected impact on an ecosystem.

The ability to breed wild animals for a specific trait, such as white-tailed deer and elk with enormous antlers, raises an important ethical question: Should we do it?

### **Emerging Science**

Man has used selective breeding techniques for desirable traits in domestic animals for thousands of years. We’ve done this not only for meat quality and quantity but also good looks, a good nose, a good nature, and other advantageous characteristics.

Selective breeding was originally limited to pairing a male and a female with the right assets. As the 20th century progressed, scientists made substantial advances in the ability to create uber-animals by manipulating genes. The more biotech researchers learned about the structure of DNA, the greater the possibilities of isolating “good genes” and using them to enhance the next generation. In the past few years, inserting or changing a gene to augment a trait has become the new frontier.

Bioengineering livestock to grow bigger and more quickly has its champions and detractors. Now game animals — particularly deer and elk — are at the forefront of the debate.

“These techniques have developed extensively over the last decade,” explains Arthur Caplan, professor of bioethics at New York University. “We can study the genes using geno-mapping to find the location where a trait, such as really big antlers, appears consistently. The embryos get tested for those genetic traits. You pick the embryos you want and artificially inseminate the mother with them. Once you get the trait you want in the [fawn], you clone it. You make animals that are all the same — or at least close to the same — in large numbers.” Science has even progressed a step further. Microbiologists now have the ability to not only identify the gene for large antlers but also to insert it into a young whitetail or change that deer’s genes so that it acquires the trait.

The science has its hiccups. “We don’t do it well yet,” says Caplan. “You can select for a trait, but not precisely. They may appear out of proportion — for example, antlers that are so big the deer can’t lift its head. Cloning is not perfect either. There’s high risk of stillborns and birth defects.” In other words, genetically engineering 100 bucks to have huge racks is not like using a Xerox machine. Even if all 100 have the same gigantic antlers, 40 of those deer might not be able to run due to another trait associated with that gene.

However, these defects do not seem to have slowed breeding efforts or canned “hunts” for the biggest rack.

### **Antler Envy**

Some people don't care how a buck came to be – the trophy on the wall is what matters to them. As a result, breeding, selling, transporting, and shooting deer and elk with outrageously large (many would argue seriously deformed and unnatural) racks has become a multi-billion dollar industry. A 2007 study by the Agricultural and Food Policy Center at Texas A&M University estimated the industry's economic impact at \$3 billion in the United States alone. It's a big business – and growing.

According to an investigative series by journalist Ryan Sabalow published in the *Indianapolis Star*, there are at least 10,000 game farms and high-fence hunting preserves throughout the United States and Canada. They range in size from less than a dozen acres to several thousand acres. Texas and Pennsylvania top the list of states with the most such farms and preserves (totaling 1,278 and 1,120 respectively); Minnesota (540) and Ohio (518) run a distant third and fourth.

Canned hunts – hunting within a fenced area in which the animal has no significant probability of escaping – are illegal or strictly regulated in just 20 states. That leaves 30 states where this industry can thrive, creating a huge market for farm-raised “wild” species. The stud fees for desirable farm-raised deer are astounding. One whitetail called X-Factor, who has a particularly mutant rack (the result of several decades of selective breeding), was estimated to be worth \$1 million in his prime as a stud buck. “Straws” of his semen used for artificial insemination have sold for more than \$10,000 each.

“It started big time about 15 years ago,” says Chuck Bauer, who chairs the Fish and Wildlife Committee for the Izaak Walton League's Indiana Division. “People found out that there's big dollars in breeding big-antlered bucks they could sell to canned hunting operations. They're Franken-bucks. There's nothing like them in the wild. It's for the guy who wants bragging rights about having the largest head mount. There's no symmetry to the rack. It's plain volume.”

Farm-raised deer bred with oversized antlers.



What's more, the animals have little natural use for outrageously sized antlers. "Wild deer and elk use their antlers for defense and for attracting mates," adds Jim Sweeney, member of the League's Indiana Division Executive Board and national Executive Board. Sweeney and Bauer drafted a resolution on this issue that was adopted at the League's 2014 national convention (see sidebar on page 40). "They need their antlers for reproduction. But when the antlers get too big, the buck can't physically reproduce. Seems kind of stupid."

Apparently it doesn't seem stupid to guests at private hunting preserves who plunk down as much as \$20,000 for the chance to shoot a buck with an enormous rack. Ironically, such a buck doesn't count toward the record books

because the Boone and Crockett Club's Records Program does not recognize animals harvested on high-fence farms.

"The Boone and Crockett Club is fundamentally a conservation organization, but for the last 100 years, it has also maintained the record book," says Keith Balfour, Boone and Crockett Club's director of marketing. "It's a set of trophy data that serves two functions: It celebrates the success of conservation work in the United States. Without conservation, there would be no mature males left. It's also a tool for wildlife managers to gauge successful or unsuccessful management decisions and programs by watching the trends. Genetically enhanced maximums have no value to the data set."



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Altered animals are also having an impact on wildlife.

### **Disease Dynamics**

Although genetically engineered super-stags are kept in enclosures, they inevitably interact with local wild populations of the same species. This poses a much larger problem than deformities: the potential transmission of deadly illnesses such as chronic wasting disease (CWD) and tuberculosis from engineered animals to wild deer.

“This industry thrives on moving deer around the country,” says Bauer, who has testified before the Indiana legislature on the matter. “They’re traded like stocks on the stock market. Hundreds of trucks travel our highways with

them. If a deer contracts CWD on a farm in Colorado, then gets sold to a high-fence operation in Pennsylvania, the Pennsylvania herd gets it. If CWD infects a tame herd, you just eradicate the herd and then quarantine the area to mitigate the problem. But once CWD escapes the fence into the wild deer population, there’s no way to stop it.”

Bauer points to the deer population in Wisconsin infected with CWD. Between the costs to eliminate the diseased deer and the dramatic decrease in hunting license sales – due to unsubstantiated fears that humans could contract CWD by eating wild game – this epidemic has cost the state millions of dollars. The first case of chronic wasting disease in Wisconsin was found in captive deer. The first

Young bucks gather near the tall fence at a breeding farm in Indiana.





A prized buck at an Indiana breeding farm.

wild deer with CWD was found close to that infected private herd.

Chronic wasting disease infection rates on game farms can be alarmingly high. Wildlife officials in Nebraska noted that in one contaminated hunting preserve, more than half of the 191 white-tailed deer were infected. One Wisconsin breeding operation had an 80 percent infection rate. Wildlife officials were so worried about contaminated soil infecting native deer that the state bought and quarantined the property.

Part of the problem with high-fence operations is the fence itself, which is typically eight feet high. Although tame deer might escape if a tree knocks down a section of fence, they're not necessarily looking to range farther — they are already well fed. However, wild deer,

which can jump up to 10 feet high, will go in and out of the enclosure, especially during the rut if a wild buck sees or smells a tame doe. There are many other ways wild and tame deer can interact — gates left open, snow built up against fences (effectively shortening the height), deer nuzzling each other through fences — and potentially transmit CWD and other illnesses.

“No matter the precautions, there’s always leakage into neutral populations,” warns Caplan, who points to salmon farming as an example. Salmon farms raise fish that have been genetically engineered to grow quickly. Inevitably, such salmon will escape from the farm, and their engineered traits will eventually spread throughout the native population. “It doesn’t matter the species,” says Caplan. “They will impact the ecosystem.”

## Unfair Chase

Perhaps the biggest ethical dilemma of all is the canned hunt itself. Typically, wealthy shooters – many with little hunting skill and even less free time to go hunting – travel to a high-fence game farm where they pay thousands of dollars for the chance to shoot one of X-Factor’s offspring or a similarly outlandish deer or elk. The outing is hardly a fair chase situation. The animals have no means of escape, and if their location isn’t obvious in a small enclosure, a guide knows where to find them. Most locations offer a guaranteed kill or your money back.

“If you make bigger animals on game farms and then make it easier to hunt them, it cheapens the sport or the challenge to get the biggest buck,” says Caplan. “To those who support fair chase, it’s not hunting.” Many hunters feel that it undermines the North American Model of Wildlife Conservation, under which wildlife is managed as a public resource. Although an individual may own land containing wildlife, that individual does not own the animals. “Public hunting is the foundation of our conservation system,” says Balfour. “Canned hunts are the privatization of wildlife.”

Even if you don’t consider canned hunts to be “hunting,” they are viewed as such by the non-hunting public – and are, by association, a poor reflection on the sport. In an era when wildlife management decisions are increasingly influenced by the ballot box rather than trained wildlife biologists, this could pose a threat to the future of hunting. In addition, conservation agencies across the United States are in a budgetary crisis that voters are loath to re-appropriate public funding to fix. Adding bad press to the mix could further decrease public support for managing wildlife populations through hunting. Of course, if public support

for hunting wanes, public access to wildlife will as well.

“Our fish and wildlife departments are funded by hunting and fishing licenses,” says Bauer. “Paying to do a canned hunt turns the idea of funding by users on its head. I’m amazed at how quickly this problem has grown. We’ve already got hundreds of deer farms in Indiana alone.” Some states do not require people who “hunt” farm-raised animals on private land to purchase a state hunting license. What’s more, the farm-raised deer are not managed by state conservation agencies, even though they can have a direct impact on wild game populations – and require state funds to address those impacts.

A deer pokes its nose through the fence at a breeding facility.



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Farm-raised elk are bred for larger racks than can be found on wild elk.

## Updating Hunter Ethics: IWLA Conservation Policy

At the Izaak Walton League's 2014 national convention, members passed a resolution recommending that state legislatures implement a hunting policy that prohibits:

- The artificial or unnatural enhancement of a game species' genetic characteristics. This includes artificial insemination, controlled or unnatural breeding programs, cloning, and translocation of breeding stock for shooting purposes.
- The practice of transporting big game species from one location to another, within the state or between states, so it can be killed for a fee.

For more League conservation policies, visit [www.iwla.org/conservationpolicies](http://www.iwla.org/conservationpolicies).

High-fence hunting operations claim that their animals are not technically wild and should be regulated by agriculture departments rather than wildlife agencies. However, these game animals have little value for their meat (restaurants typically use different species) and game farms do not follow federal guidelines for the slaughter of domestic animals. Game farms market themselves as hunting preserves where a guest can harvest a trophy animal with a bow or a firearm, yet these canned hunts don't fall under jurisdiction of the state wildlife agency.

It's a regulatory no-man's land with the game farms often having free reign over their animals – without giving them free range. Every state has its own approach. More than half the states that allow fenced hunting preserves exempt them from the wildlife laws meant to ensure fair chase, leaving such questions solely to the discretion of preserve owners.

"Wildlife is a public trust, not to be privatized," says Sweeney. "Government agencies manage wildlife to benefit all people, not just a few. It shouldn't be privatized for profit. Hunting can be profitable, but not because a person owns the animals."

"I have trophies on my wall," says Balfour. "Those were memorable hunts. I researched the area, hunted hard, passed on smaller animals, then shot a big male that was older, wiser, and had contributed for a number of years to the herd. The hunt has always meant more to me than the kill. The reward is hunting, not filling the wall with heads."

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*Lisa Densmore Ballard is an award-winning writer, photographer, and television producer based in Red Lodge, Montana. She won three Emmys as host and field producer of Wildlife Journal (PBS), a show dedicated to educating people about conservation issues and initiatives and to getting people of all ages outdoors. (www.LisaDensmore.com)*

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