

## **MECHANICAL/ELECTRONIC DECOYS FOR HUNTING**

### **Introduction/Background**

Last Fall, the Commission requested that the Department review the current available federal, Flyway, and state information regarding the increasing hunter use of mechanical/electronic animal decoys. This is a briefing on those findings. This review was prompted by the controversy over the increasing use of these new, more efficient decoys and the fact that two other Pacific Flyway states have already either totally or partially banned their use for waterfowl hunting.

Through the evolution of hunting, first as a means for subsistence and later as a sport, the hunter has always looked for ways to be more successful. Perhaps the most enduring method has been through the use of animal lures and decoys. Early hunters used live animals and birds as a lure, or constructed similar looking decoys of mud, plants, wood, or other local material, to help get close to animals for a successful hunt. The uses of decoys by native North Americans for waterfowl hunting has been documented back over a thousand years.

As waterfowl hunting evolved from a market activity to a recreation in the early 20<sup>th</sup> century, individual states, and later the federal government, took a hard view at two of the most common practices not directly banned as a result of the 1918 Migratory Bird Treaty Act for boosting waterfowl hunting success, the use of baiting and live decoys. The federal government finally followed the lead of individual states and banned the use of both practices during the prairie drought years of the 1930s.

Plastics were the 1950s innovation that allowed decoy makers to begin crafting a cheap mass-produced extremely life-like product. Prior to that, most waterfowl decoys were hand-carved of wood by local craftsman. Decoys that produce specific movement to better attract birds are an old and well-known concept, since hunters have been using wind, or drawstrings attached to specific decoys, for many hundreds of years to that effect.

More recent market innovations, however, have led to increasingly life-like decoys that not only have the appearance of the real thing, but also frequently move in a more realistic manner. Waterfowl hunters and increasingly other hunters as well, now have the option of purchasing mechanical/electronic decoys that utilize tiny electric motors to move about, powered by small batteries, and controlled by remote control from the blind.

The use of electronic/mechanical waterfowl decoys became more common in 1998 and has become increasingly popular with hunters in most states and provinces. Many varieties are sold through commercial outlets. Home made versions also exist. Goose varieties of mechanical decoys are also used to some extent and it was noted that some hunters are beginning to use flashing blades as an attractant to hunt mourning doves in southern states.

The newer electronic type waterfowl decoys generally have a spinning wing or blade apparatus that revolve at a high speed, supposedly imitating the movement of waterfowl as they stretch

their wings and move about. Other decoy types vibrate in water to imitate the movement of birds feeding. Power sources for these types of decoys are batteries. Some can be turned off and on by remote control. Catalogs also advertise the latest concept, a number of decoys attached together, 4 or more, that move around a central post and alternately dive and surface to imitate a whole flock of feeding ducks.

### Survey of Regulations

The Department conducted a survey (telephone or regulation review) of all 50 states to determine if mechanical and electronic decoys for both big game and game birds were regulated. Of these, 11 regulate decoys (both regular and mechanical/electronic) while the remaining 39 states do not. The following states have specific restrictions or prohibitions on use:

<b>Deer Decoys (all types)</b>	<b>Deer Decoys (electronic)</b>
Massachusetts	Pennsylvania
Rhode Island	Minnesota (no remote electronic controls)
<b>Turkey Decoys (all types)</b>	<b>Turkey Decoys (electronic)</b>
New Jersey	Pennsylvania
Alabama	Indiana
	Michigan (includes mechanical)
	Minnesota
	Illinois
<b>Waterfowl Decoys (electronic)</b>	<b>Waterfowl Decoys (electronic special regs)</b>
Pennsylvania	California (prohibited prior to December 1)
Washington	Minnesota (no remote electronic controls)

Many of the prohibitions for deer and turkey decoys have been established for several years and were mostly initiated over the issue of safety. Specific regulations relating to electronic waterfowl decoys have only been passed within the last two years, except for Pennsylvania. Their original 1992 regulations were designed solely to regulate deer and turkey decoys but proved to be encompassing enough to also prohibit the new electronic waterfowl decoys.

California's regulations were adopted specifically to protect resident populations of mallards. Flyway banding has shown that for the first part of the California season, very few mallards from outside of California are harvested. Harvest rates of locally produced mallards have increased in recent years, and while it cannot be totally attributed to mechanical decoys, the California Commission took a conservative approach.

Washington adopted regulations that prohibited the use of all electronic decoys last hunting season. The Washington Commission of Fish and Wildlife was more concerned over "fair chase" issues, and to some extent increased hunter success surrounding electronic decoy use.

State and Federal wildlife agency personnel throughout the United States and Canada have debated the use of electronic waterfowl decoys, and whether individual states should tackle this issue, or should it be addressed at the broader federal level as part of the waterfowl season frameworks. There also have been informal discussions that a electronic/mechanical decoy use review could be part of a U.S. Fish and Wildlife Service Environmental Impact Statement review of migratory game bird seasons that begins next year.

Current duck season frameworks under the federal Adaptive Harvest Management system are based on historical duck harvest rates. If harvest rates were to shift significantly for the long-term, no matter what the cause, adjustments in seasons and bag limits could be warranted. Reduced bag limits or fewer liberal seasons could be possible.

As outlined earlier, there are only 3 states that totally prohibit the use of electronic decoys for all hunting or portions of the hunting season. The following provides regulation language for those states:

Pennsylvania: “It is unlawful to....hunt or take wildlife through the use of an electronic device not permitted by commission regulation.”

California: “It is unlawful to use electronic or mechanically-operated spinning blade devices or spinning wing decoys when attempting to take waterfowl between the start of waterfowl season and December 1. For the purpose of this regulation, wind-powered spinning blade devices and kites are not prohibited.”

Washington: “It is unlawful to....hunt waterfowl with the use or aid of battery-powered or other electronic devices as decoys.”

## **Current Research**

Field research has been extremely limited to this point and has focused on waterfowl decoys. The University of California at Davis and California Waterfowl Association recently completed a study that focused on three main objectives: 1) Documenting hunter success and crippling rates using electronic decoys vs traditional methods; 2) Collecting biological harvest data associated with both hunting methods; and 3) Determining how waterfowl respond to electronic decoys (unpublished manuscript). A brief summary of their research follows:

- Use of the electronic duck decoys can lead to increased harvest (up to almost 3:1).
- This effect did decline over the season with higher harvest ratios early in the season, decreasing towards the end.
- Crippling rate, defined as the proportion of birds not recovered, did not differ significantly.
- Use of the electronic duck decoys increased harvest of all duck species using the study area with the highest increases occurring for American wigeon and northern pintail, while mallards and northern shoveler exhibited the lowest increase.

Preliminary findings from a study conducted in Manitoba, Canada showed success rates increased up to 24 times for those individuals using electronic decoys while hunting in fields. A 5 times higher rate was recorded in marshes.

Other field research in Missouri and Nebraska also found increased harvest success with the use of electronic decoys. Increased rates varied and changed during different periods of the hunting season.

Some surveys have been conducted at hunter check stations in some states. A report prepared by Minnesota for the 2000 hunting season showed that hunters using electronic decoys spent more days hunting and killed more birds than those with no electronic decoys. However, due to study design, Minnesota was unable to determine if the electronic decoys were the sole reason for the increased harvest. Other surveys in California, Illinois and Missouri indicated hunters reporting higher success with the use of electronic decoys.

## **Harvest Trends**

For the last 5 years under the U.S. Fish and Wildlife Service's Adaptive Harvest Management (AHM) system, the Pacific Flyway has been able to offer liberal hunting seasons of 107 days. However, in recent years, duck harvest in the Pacific Flyway has declined or remained unchanged, while hunter numbers have been stable (approx. 200,000) (Figure 1). This same trend has also been recorded in Oregon (Figure 2). It should be noted that the use of electronic/mechanical decoys has grown significantly during this time period of liberal seasons.

Even with probable increased hunter efficiency through the use of electronic decoys, however, as shown by field research described earlier, overall duck harvest has not increased. Numerous factors affect harvest, including distribution of breeding birds, breeding success, migration patterns, fall and winter weather, winter habitat conditions, and hunter effort and efficiency. Waterfowl researchers generally agree that it is impossible to absolutely pinpoint the overall factor that dictates total harvest. The conclusion is that while mechanical decoys may improve hunter efficiency, other environmental factors may have a more significant influence on overall harvest.

## Duck Harvest and Hunters in the Pacific Flyway

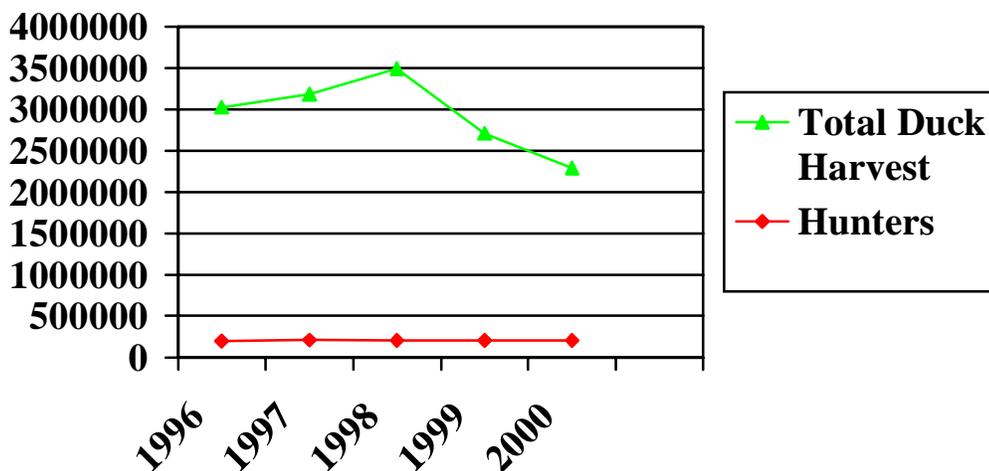


Figure 1. Duck Harvest and Hunters in the Pacific Flyway (1996-2000).

## Duck Harvest and Hunters in Oregon

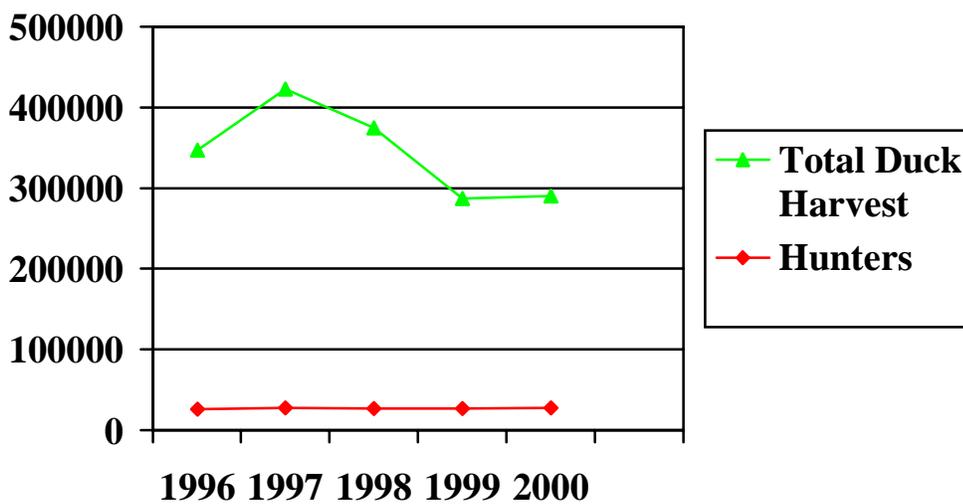


Figure 2. Duck Harvest and Hunters in Oregon (1996-2000).

## **Hunter Surveys and Satisfaction**

Surveys conducted through specific research projects in California and Minnesota have provided an insight into hunter satisfaction related to electronic decoys. During the 2000 hunting season in Minnesota it was determined that 10% of all hunters used electronic decoys. Of those who used the decoys, 22% felt the decoys were very effective, 64% felt they were somewhat effective, 9% felt they were not effective and 5% were not able to gauge the effectiveness. In an ongoing California opinion survey, 69% of the respondents believed the decoys to be more effective.

Use of electronic decoys in Oregon has become more common but to date there are no comprehensive surveys to document their use. But as an example, it is estimated by Sauvie Island Wildlife Area personnel that approximately 70 percent of the hunters on the area use these types of decoys. Trends in wildlife area harvest have mirrored Flyway and statewide harvest, declining in recent years.

One of the questions facing all state agencies is how to evaluate the impacts of improved technology on both harvest and hunter satisfaction. In recent years this Commission has been faced with this question numerous times. In the last few years, the Commission has dealt with regulations pertaining to traditional vs. improved technology, specifically for muzzleloaders, archery, lighted and laser sights. In each of these cases, the Department has estimated potential biological impacts as a result of increased technology. In all of the cases where the Department demonstrated either direct or potentially increased biological impact, the Commission limited technology.

Oregon hunter opinion on the use of these decoys is split. Some strongly favor the use of the decoys, citing improved success and less crippling loss. These hunters generally favor the use of season lengths and bag limits as a more appropriate way to manage harvest. Other supporters cite the need to keep hunters interested in the sport and that electronic decoys provide that interest because of improved individual success. Non-supporters claim that the decoys are too efficient at fooling waterfowl, and that basic skills and traditions of "waterfowling," such as proper calling, blind building, and decoy placement are de-valued with their use. Others are worried over how efficient or unsportsmanlike the next generation of electronic/mechanical decoys might turn out. As shown in other state surveys, the opinion on the effectiveness of the decoys varies.

## **Conclusion**

In general, use of wildlife decoys has gained in popularity over the years as technology has produced more realistic and easily used decoys for bird and big game hunting. Recent advances have built on that realism to include motion decoys, especially for bird hunting. With the recent advances in waterfowl decoys, controversy over the impacts to duck populations and the potential impact to hunting seasons has grown. Limited research has shown increased hunter efficiency can occur, but does not currently appear to be a factor in overall harvest in individual Flyways. However, it should be noted that early season biological impacts to resident birds could be high.

The questions facing this Commission are numerous. Are there biological or social reasons to address the use of electronic decoys? Biologically, at this point in time electronic waterfowl decoys do not appear to be influencing overall harvest in Oregon and the Pacific Flyway. As evidenced in California there are potential impacts to resident duck populations during the early season, however, the Department has not fully analyzed existing data that indicates impacts to local breeding populations. However, it is very important to note that with numerous factors influencing harvest that attributing significant shifts in overall harvest rates to electronic decoys is not possible.

The social question, however, may be significant. The popularity of electronic decoys has increased as prices have dropped. This raises the issue of traditional vs improved technology that the Commission has faced in the past. While the department has received some correspondence on this issue, many appear to be waiting to see what direction the Commission will provide for developing policies to address the use of electronic decoys.