STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

RICK SNYDER
GOVERNOR

KEITH CREAGH
DIRECTOR

SUBMITTED: July 17, 2017

MEMORANDUM TO THE NATURAL RESOURCES COMMISSION

Subject: Additional Colors for Hunting Apparel
Wildlife Conservation Order Amendment No. 8 of 2017
FOR INFORMATION ONLY

Authority:

The Natural Resources and Environmental Protection Act, 1994 PA 451, authorizes the Director and the Commission to issue orders to manage wild animals in this state.

Discussion and Background:

Currently, under MCL 324.40116(1), individuals may not take game during the established daylight shooting hours from August 15 through April 30 unless he or she wears a cap, hat, vest, jacket, or rain gear of hunter orange. Hunter orange includes camouflage that is at least 50 percent hunter orange. The hunter orange garments must be the hunter's outermost garment and visible from all sides. These requirements do not apply to an individual who is:

- Taking deer with a bow or crossbow during archery deer season
- Taking bear with a bow or crossbow
- Taking turkey or migratory birds other than woodcock
- The sport of falconry
- Stationary and in the act of hunting bobcat, coyote, or fox

Public Act 377 of 2016 amended Part 401 (MCL 324.40116) of the Natural Resources and Environmental Protection Act to specify that an individual shall not take game during the established daylight shooting hours from August 15 through April 30 unless he or she wore hunter orange or a color authorized by the Natural Resources Commission (NRC). The NRC is required to review and determine whether hunter pink or any additional colors would be effective and safe for individuals to wear while hunting and, by October 1, 2017, issue an order authorizing those colors to be worn based on its determination.

MCL 324.40116(5) also defines hunter pink as "the highly visible color commonly referred to as hunter pink, including blaze pink, flame pink, and fluorescent blaze pink."

The Law Enforcement Division (LED) has reviewed research whether hunter pink or any additional colors would be as or more effective and safe as hunter orange for individuals to wear while hunting. The LED recommends that the NRC retain the hunter orange garment requirement and not authorize any additional garment colors to be worn while hunting as a

substitute for hunter orange. A hunter may wear garments of any color while hunting as long as the hunter is wearing the required hunter orange set forth in MCL 324.40116.

Issues Pros and Cons

Allowing individuals to wear hunter pink or any additional colors in lieu of hunter orange while hunting may appeal to new and existing hunters, especially youth and women hunters. Hunter pink clothing may also be manufactured to better fit hunters of smaller stature and allowing additional colors may lead to increased recruitment and retention. However, to the Department's knowledge, there has been no research done to determine if additional safety colors would bring any interest of new hunters.

Currently, any additional colors, such as hunter pink, already may be worn while hunting. However, the individual must wear a cap, hat, vest, jacket, or rain gear of hunter orange during the established daylight shooting hours from August 15 through April 30 and the hunter orange garment must be the individuals outermost garment and visible from all sides.

Hunter orange has been required for hunting in Michigan since the 1970s; it is the national and international recognized standard for identifying a hunter in the field/woods. Since then, the number of hunting-related injuries and deaths has steadily declined in Michigan. Many other states, Canadian provinces, and some countries where hunter orange is required have respectable safety records as well. In addition, International Hunter Education Association - United States of Americas (IHEA-USA) research, recommends that hunter orange be the only color used by hunters in the field to prevent hunting accidents.

Because so few states allow the use of any hunter safety color other than blaze orange, there is not an accumulation of field data supporting additional colors.

Hunter pink is not an Occupational Safety and Health Act Safety approved color.

In May 2016, the LED Hunter Education Section conducted a survey of Michigan volunteer instructors, who train thousands of new hunters every year. The purpose of the survey was to determine whether the instructors supported allowing hunter pink or any other color in lieu of hunter orange. The survey also asked whether the instructors knew anyone who had difficulty seeing pink, orange, or other colors. The last question on the survey was to determine whether the instructors knew any non-hunters who would become hunters based on allowing additional safety colors. Out of the 216 instructors who responded, 209 did not support the addition of any other color in lieu of hunter orange: 38 respondents stated they had difficulty seeing the color pink: and 213 stated they did not know any non-hunters who would start hunting if an additional color was allowed for safety reasons.

Additionally, the Michigan Hunter Safety Instructor Association (MHSIA) does not support the addition of hunter pink or any other color. The MHSIA recognizes hunter orange as the international safety standard for hunting and feel the addition of other colors would increase confusion which could jeopardize safety.

Other States

Seven states allow another color in addition to hunter orange: Colorado, Louisiana, Minnesota, New York, Virginia, Wisconsin allow hunter pink, and Arkansas allows chartreuse (neon green). Hunter pink was recently rejected in Illinois, Maine, and Montana.

Biological

There is no negative biological impact.

Social

The IHEA-USA, of which Michigan is a voting member, does not currently take a position on this issue but has provided a statement regarding hunter orange and the visibility of other colors: "Absent of any scientific evidence to the contrary, the IHEA-USA reaffirms our recommendation that hunter orange is the most effective color to be worn by hunters in the field to prevent hunting incidents. No nationally recognized study has established or verified standards for the wavelength, luminance, or excitation purity required for visibility of any color other than hunter orange in natural environments by human observers. Hunter orange should have a dominant wavelength between 595 and 605 nanometers, a luminance factor of not less than 40 percent, and an excitation purity of not less than 85 percent. Additionally, no qualitative or quantitative research has been conducted to document the influence, positive or negative, of hunter safety color choice on the recruitment, retention, or reactivation of new or existing hunters. Therefore, IHEA-USA recommends that hunter safety color requirements be established solely on the basis of detectability and visibility of a color in natural environments by human observers."

The IHEA-USA Research Committee reviewed the following documents and are available to the NRC upon request:

- Safety Speaking Points Series by Wisconsin Department of Natural Resources
- 1961 Massachusetts Hunter- Safety Color Test by Oscar W. Richards, PH.D.
- Why Deer Spot Hunters by Majid Sarmadi
- DayGlo Fluorescent Color Theory (www.dayglo.com)
- Fluorescent Pink Speaking Points by Colorado Department of Natural Resources
- High-Visibility Clothing for Daytime Use in Work Zones by Jonathan Dan Turner, Carole Simmons, and Johnny Graham
- Detectability and Visibility of Solid Hunter Orange Vs. Camouflage Hunter Orange To Human Observers by Kelly Olson, Todd Childs, Walter Chase, and Paul DeLand
- Safety Color Study by Red Chaplin
- Hunting-Associated Injuries and Wearing "Hunter" Orange Clothing- New York, 1989-1995 (Centers for Disease Control and Prevention)
- Pink for Hunting
- Pink Hunting Rule by Wisconsin Department of Natural Resources
- Wisconsin State Statute 29.301 (2)

Economic

The addition of approved colors would require guide and manual changes, as well as additional training materials to include the addition of other approved colors. Forms, literature, and databases that track hunter casualty incidents and other safety information would also have to be changed.

Relevant Divisions have contributed to the preparation of this order. This order is being submitted for information and consideration. This item appeared on the Department's July 2017 calendar and may be eligible for approval on September 14, 2017.

Russ Mason, Ph.D., Chief
Wildlife Division

Gary Hagler, Chief
Law Enforcement Division

William O'Neill, Chief
Forest Resources Division

Ronald A. Olson, Chief
Parks and Recreation Division

James Dexter, Chief
Fisheries Division

William E. Moritz, Ph.D.
Natural Resources Deputy

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WILDLIFE CONSERVATION ORDER

Amendment No. 8 of 2017

By authority conferred on the Natural Resources Commission and the Director of the Department of Natural Resources by sections 40107 and 40113a of 1994 PA 451, MCL 324.40107 and 324.40113a, it is ordered that effective September 15, 2017, the following section(s) of the Wildlife Conservation Order shall read as follows:

2.1 Taking of animals; prohibited methods, devices, and weapons; exceptions.

Sec. 2.1 Unless otherwise specified in this order, a person shall not do any of the following:

(1) Make use of a pit, pitfall, deadfall, scaffold, raised platform, tree, cage, snare, trap, net, baited hook, or similar device, or a drug, poison, anti-coagulant, smoke, gas, explosive, weasel, ferret, fitchew, arbalest, spear, or mechanical device, for the purpose of taking an animal or driving an animal out of their hole or home. For the purpose of this order, a mechanical device shall not be construed to mean a firearm, crossbow, slingshot, or bow and arrow. When used in this order, "raised platform" means a horizontal surface constructed or manufactured by a person that increases the field of vision of a person using the horizontal surface beyond the field of vision that would normally be attained by that person standing on the ground.

(2) Use in taking an animal, or have in the persons possession in an area frequented by animals, a semiautomatic shotgun or rifle other than .22 caliber or smaller rimfire, capable of holding more than six shells at one time in the magazine and barrel combined, or use a cartridge containing a tracer bullet, or a cartridge containing an explosive bullet, or a firearm capable of firing more than one shot with a single pull or activation of the trigger.

(3) During the five days immediately preceding November 15, transport or possess in an area frequented by deer a rifle or shotgun with buckshot, slug load, ball load, or cut shell. A person may transport a rifle or shotgun to or from a hunting camp if the rifle or shotgun is unloaded and securely encased or carried in the trunk of a vehicle. This section shall not prohibit a resident who holds a fur harvesters license from carrying a rimfire firearm .22 caliber or smaller while hunting or checking a trap line during the open season for hunting or trapping fur-bearing animals.

(4) Use in hunting, or, subject to section 43510, 1994 PA 451, MCL 324.43510, possess afield in an area inhabited by wild birds and animals within the "limited firearms deer zone" from November 15 to November 30, or use to take a deer during any firearm deer season in the "limited firearms deer zone," a firearm other than:

(a) A shotgun with a smooth or rifled barrel.

(b) A .35 caliber or larger pistol capable of holding no more than nine shells at one time in the barrel and magazine combined and loaded with straight-walled cartridges.

(c) A muzzle-loading rifle or black-powder pistol loaded with black-powder or a commercially manufactured blackpowder substitute.

(d) A .35 caliber or larger rifle loaded with straight-walled cartridges with a minimum case length of 1.16 inches and a maximum case length of 1.80 inches.

(e) A .35 caliber or larger air rifle or pistol charged only from an external high-compression power source such as an external hand pump, air tank, or air compressor.

(5) Injure, destroy, or rob the eggs of birds protected by the laws of this state or this order, or molest, harass, or annoy those birds upon their nests.

(6) Make use of a sink box or battery as these devices are defined by the United States fish and wildlife service.

(7) Set afire or assist in setting afire a marshland or other lands for the purpose of driving out wild birds or wild animals, or take or attempt to take a wild bird or wild animal so driven out of a marshland or other land.

(8) Take any animal at any time other than during the hunting hours and open seasons established in this order, except as may otherwise be provided in chapter VI.

(9) Take in 1 day more than the daily limit, or possess at one time more than the possession limit, or possess on the first day of the open season more than the daily limit, or possess more than the season limit of any animal.

(10) Destroy, disturb, or molest at any time any bear, beaver, muskrat, raccoon, squirrel, mink, badger, or rabbit house, hole, burrow, nest, dam, or den which may be used by such animals.

(11) Make use of a dog in hunting deer, except as noted in section 2.1a of this order.

(12) Affix any device to a bow, which aids in the cocking or holding of a bow string in a drawn position. This subsection shall not prohibit the use of a hand-held device to release the bow string. This subsection shall not apply to a permanently or temporarily disabled person who holds a special permit provided for in section 40101 to 40119 of 1994 PA 451, MCL 324.40101 to 324.40119, or section 5.95 of this order.

(13) Use aircraft to aid in the taking of a wild bird or wild animal.

(14) Take game with a crossbow unless the hunter possesses a valid license to take game and uses only arrows, bolts, and quarrels for taking deer, bear, elk, wolf, and turkey with a broadhead hunting type of point not less than 7/8 of an inch wide with a minimum of 14 inches in length.

(15) Take deer with a crossbow or a modified bow in zone 1 from December 1 to March 31. This subsection shall not apply to a person who holds a special permit provided for in part 401, wildlife conservation, natural resources and environmental protection act, 1994 PA 451, as amended, MCL 324.40101 to 324.40119, or section 5.95 of this order.

(16) Except as provided in MCL 324.40116(2), take game during the established daylight shooting hours from August 15 through April 30 unless the individual wears a cap, hat, vest, jacket, rain gear of hunter orange as defined in MCL 324.40116. Hunter orange includes camouflage that is not less than 50 percent hunter orange. The garments that are hunter orange must be the hunter's outermost garment and be visible from all sides of the hunter.

Issued on this 14th day of September, 2017.

Approved as to matters over which the Natural Resources Commission has authority.

John Matonich, Chairman
Natural Resources Commission

Approved as to matters over which the Director has authority.

Keith Creagh
Director