

	<p>2. <u>Illegal to sell?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p>Notes: Some people actively engage in pigeon racing (8). Not protected by the Migratory Bird Treaty Act. Classified as an unprotected species by WI DNR.</p>
B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS	
I. Life History	<p>1. <u>Type of Animal:</u> Mammal <input type="checkbox"/> Bird <input checked="" type="checkbox"/> Reptile <input type="checkbox"/> Amphibian <input type="checkbox"/> Fish <input type="checkbox"/></p> <p>2. <u>Age of Maturity or time to self sufficiency:</u> Juveniles fledge in about 25-32 days; 45 days during the winter (1). This species will continue to feed their young, even after fledging.</p> <p>3. <u>Gestation Period:</u> The average incubation time is about 18 to 19 days (1, 3).</p> <p>4. <u>Mating System:</u> Polygamous <input type="checkbox"/> Polyandrous <input type="checkbox"/> Monogamous <input checked="" type="checkbox"/> <u>Notes:</u> This species mates for life.</p> <p>5. <u>Breeding/ Breeding period:</u> They have 1-3 eggs, usually 2 per clutch, with multiple clutches per year (1, 3, 4). Pair formation occurs between February and September with no peak time. Breeding season for this species can last up to 8 months (10). Overlapping of clutches and broods are common in summer months (2). This species is known to produce crop milk which is fed to their young (9).</p> <p>6. <u>Hybridization potential:</u> This species is known to hybridize with wood pigeons (11). Many intentional crosses with pigeons result in infertile offspring.</p>
II. Climate	<p>1. <u>Climate restrictions:</u> none</p> <p>2. <u>Effects of potential climate change:</u> Climate change will not affect the status of pigeons unless it effects where humans reside.</p>
III. Dispersal Potential	<p>1. <u>Pathways - Please check all that apply:</u></p> <p><u>Unintentional:</u> Bird <input type="checkbox"/> Animal <input type="checkbox"/> Vehicles/Human <input type="checkbox"/> Wind <input type="checkbox"/> Water <input type="checkbox"/> Other:</p> <p><u>Intentional:</u> Ornamental <input type="checkbox"/> Forage/Erosion control <input type="checkbox"/> Medicine/Food: <input checked="" type="checkbox"/> Recreational <input checked="" type="checkbox"/> Other: Pets, racing pigeons</p> <p>2. <u>Distinguishing characteristics that aid in its survival and/or inhibit its control:</u> A prolific breeder and human commensal.</p>
IV. Ability to go Undetected	<p>1. HIGH <input type="checkbox"/> MEDIUM <input type="checkbox"/> LOW <input checked="" type="checkbox"/> This species, for the most part, needs to live near humans to survive.</p>
C. DAMAGE POTENTIAL	
I. Competitive Ability	<p>1. <u>Presence of Natural Enemies:</u> Raccoons, opossums, great-horned owls, and Cooper's hawks are some of this species enemies.</p> <p>2. <u>Competition with native species:</u> There was not much information on pigeons competing with native species. This species is found mostly in areas with human occupancy, where native species have been displaced. This species can be aggressive</p>

	<p>around nesting territories (3).</p> <p>2. Rate of Spread: -changes in relative dominance over time: -change in acreage over time: HIGH(1-3 yrs) <input type="checkbox"/> MEDIUM (4-6 yrs) <input type="checkbox"/> LOW (7-10 yrs) <input type="checkbox"/> Notes: There is no information if the population is increasing or decreasing. The population of pigeons could be stable. This species can bounce back readily if population numbers are reduced. The species is very prolific and can have a high rate of spread if there a relatively new to an area.</p>
II. Environmental Effects	<p>1. <u>Alteration of ecosystem/community composition?</u> YES <input type="checkbox"/> NO X Notes:</p>
	<p>2. <u>Alteration of ecosystem/community structure?</u> YES <input type="checkbox"/> NO X Notes:</p>
	<p>3. <u>Alteration of ecosystem/community functions and processes?</u> YES <input type="checkbox"/> NO X Notes:</p>
	<p>4. <u>Exhibit Parasitism?</u> YES <input type="checkbox"/> NO X Notes:</p>
D. SOCIO-ECONOMIC EFFECTS	
I. Positive aspects of the species to the economy/society:	Notes: This species has a long history with humans. Humans have used pigeons for food and enterianment (3). Pigeon racing has become a sport for some people (8).
II. Potential Socio-Economic Effects of Requiring Controls: Positive: Negative:	Notes: Pigeons are well liked and enjoyed by some people and controlling them could cause public outcry. Pigeons are known to carry over 50 different diseases that can affect human and livestock (7).
III. Direct and indirect Socio-Economic Effects of the animal :	Notes: Pigeons carry numerous diseases which are trasmissible to humans (7). Pigeons damage and deface buildings and other structures with droppings and nests.
IV. Increased Costs to Sectors Caused by the Animal:	Notes: One of the most serious bird pests (7). Affects health, building maintenance, janitorial, nuisance animal control, and farming sectors. Pigeons are also serious problems in many urban areas where they damage and deface buildings, statues, bridges, and other structures with droppings and nests.
V. Effects on human health:	Notes: Pigeons are known to carry over 50 different diseases that can affect humans and livestock (7). Many of these diseases are spread via droppings.
VI. Potential socio-economic effects of restricting use:	Positive: Pigeons are known to carry over 50 different diseases that can affect human and livestock (7). Restricting use and elminating pigeons might curtail the spread of these diseases. Nuisance animal control businesses will benefit from increased business opportunities. Negative: Pigeons are well liked by some people and restricting

	their use could cause public outcry.
E. CONTROL AND PREVENTION	
I. Costs of Prevention (please be as specific as possible):	Notes: \$9/bird/year cited by one study (7).
II. Responsiveness to prevention efforts:	Notes: This species is hard to control because of their sheer numbers and nesting instincts (12). Trapping and poisoning have had no significant results in reducing numbers of pigeons (1). This species is very prolific, making eradication efforts difficult (4).
III. Effective Control tactics:	Mechanical X Biological <input type="checkbox"/> Chemical X Times and uses: Controlling individuals at night will help lower public outcry because people will not be as likely to see active control effort.
IV. Minimum Effort:	Notes: Poisons and trapping would be the minimalist effort to start to control pigeon populations. One easy way to control the population is to remove pigeon feeding and water sites (4).
V. Costs of Control:	Notes: \$9/bird/year quoted in one study (7).
VI. Cost of prevention or control vs. Cost of allowing invasion to occur:	Notes: This species can be harmful to humans and livestock and important to control. On the other hand, control of this species has been attempted in the past with no meaningful long-term success.
VII. Non-Target Effects of Control:	Notes: Lethal controlling techniques may potentially affect other bird species.
VIII. Efficacy of monitoring:	Notes: The breeding bird survey would be a good tool for monitoring.
IX. Legal and landowner issues:	Notes: Some people like pigeons, and control methods may cause a public outcry.

F. REFERENCES :

Number	Reference
1	http://www.birds.cornell.edu/AllAboutBirds/BirdGuide/Rock_Pigeon.html
2	http://fwp.mt.gov/fieldguide/detail_ABNPB01010.aspx
3	Roof, J. 2001. "Columba livia" (On-line), Animal Diversity Web. Accessed July 26, 2007 at http://animaldiversity.ummz.umich.edu/site/accounts/information/Columba_livia.html .
4	Bull, John and John Farrand. 1994. National Audubon Society Field Guide to Birds, Eastern Region. Alfred a. Knopf Inc. New York, New York.
5	National Geographic. 1999. Field Guide to the Birds of North America 3 rd edition. National Geographic Society Washington D.C.
6	http://dgifremote.gmfs.state.nm.us/education/documents/rockdove.pdf
7	http://www.aphis.usda.gov/ws/nwrc/symposia/economics/bergmanHR.pdf
8	http://www.pigeon.org/organization.php?f=All
9	http://www.birdhobbyist.com/articles/BirdHobbyist/Species/DovesPigeons.html

10	http://museum.gov.ns.ca/mnh/nature/nsbirds/bns0201.htm
11	http://www.messybeast.com/genetics/hybrid-birds.htm
12	http://www.pestproducts.com/pigeons.htm#Elimination
13	Cutright, N.J., B.R. Harriman, R.W. Howe, eds. 2006. Atlas of the Breeding Birds of Wisconsin. WI Soc. for Ornithology, Inc., Waukesha, WI.

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