

<b>NAME OF SPECIES:</b> <i>Carduelis carduelis</i>	
<b>Synonyms:</b>	
<b>Common Name:</b> European goldfinch, Eurasian goldfinch, British goldfinch, eastern goldfinch, goldfinch, gray-crowned goldfinch	
<b>A. CURRENT STATUS AND DISTRIBUTION</b>	
I. In Wisconsin?	1. YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
	2. <u>Abundance:</u> There have been recent, scattered sightings in southern Wisconsin (7, 10).
	3. <u>Geographic Range:</u> Southern Wisconsin and around Lake Michigan (8, 10).
	4. <u>Habitat Invaded:</u> Grasslands, woodlands, orchards, parks and gardens (1, 4, 5). Disturbed Areas <input checked="" type="checkbox"/> Undisturbed Areas <input type="checkbox"/>
	5. <u>Historical Status and Rate of Spread in Wisconsin:</u> In 2002 a major bird importer released many European birds. This release occurred in Chicago, IL (8)
	6. <u>Proportion of potential range occupied:</u> They may migrate short distances and may wander during winter months (2).
	7. <u>Survival and Reproduction:</u> No information is given about their reproductive effort in WI. Breeding pairs have been seen in southern WI (8).
II. Invasive in Similar Climate Zones	1. YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> <u>Where (include trends):</u> Upper Midwest. Mainly northern Illinois, southern Wisconsin, and around Lake Michigan (8).
III. Invasive in Similar Habitat Types	1. Upland <input type="checkbox"/> Wetland <input type="checkbox"/> Dune <input type="checkbox"/> Prairie <input type="checkbox"/> Aquatic <input type="checkbox"/> Forest <input type="checkbox"/> Grassland <input type="checkbox"/> Bog <input type="checkbox"/> Fen <input type="checkbox"/> Swamp <input type="checkbox"/> Marsh <input type="checkbox"/> Lake <input type="checkbox"/> Stream <input type="checkbox"/> Other: This species is found in grasslands, woodlands, orchards, parks and gardens (1, 4, 5).
IV. Habitat Affected	1. <u>Where does this invasive resided:</u> Edge species <input checked="" type="checkbox"/> Interior species <input type="checkbox"/>
	2. <u>Conservation significance of threatened habitats:</u> This species is found in urban habitats. This bird is not found in any threatened habitat (1, 4, 5).
V. Native Habitat	1. <u>List countries and native habitat types:</u> Europe, northern Africa, and Asia (1). Grasslands, woodlands, orchards, parks, and gardens are inhabited by this species (1).
VI. Legal Classification	1. <u>Listed by government entities?</u> This species is not protected by the Migratory Bird Treaty Act.
	2. <u>Illegal to sell?</u> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Notes: Pricing can range from \$40-900/breeding pair (2).
<b>B. ESTABLISHMENT POTENTIAL AND LIFE HISTORY TRAITS</b>	
I. Life History	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"/>
	2. <u>Age of Maturity or time to self sufficiency:</u> This species leaves the nest 2-3 weeks after birth (5). The young fledge at 14 days (1).
	3. <u>Gestation Period:</u> Incubation last around 11-14 days (3), averaging 13 days (1).

	<p>4. Mating System: Polygamous <input type="checkbox"/> Polyandrous <input type="checkbox"/>  Monogamous X  <u>Notes:</u> Parents will build the nest together, but the female is the one to incubate the eggs (5).</p>
	<p>5. Breeding/ Breeding period: Breeding occurs May-August. The female lays 3-7 eggs (1). The European goldfinch will have 2-3 broods per breeding season (4).</p>
	<p>6. <u>Hybridization potential:</u> This species can hybridize with canaries (1). The species was used for "mule breeding" (11). The European goldfinch was intentionally crossed with canaries for pets (11).</p>
II. Climate	<p>1. <u>Climate restrictions:</u> None found. This species has been observed as far north as Thunder Bay, Ontario (9).</p>
	<p>2. <u>Effects of potential climate change:</u> No information on this particular species.</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: Recreational <input type="checkbox"/> Other: Brought to US via pet trade and released into the wild.</p>
	<p>2. <u>Distinguishing characteristics that aid in its survival and/or inhibit its control:</u> none</p>
IV. Ability to go Undetected	<p>1. HIGH <input type="checkbox"/> MEDIUM <input type="checkbox"/> LOW X This species is very colorful and easily identified.</p>
<b>C. DAMAGE POTENTIAL</b>	
I. Competitive Ability	<p>1. <u>Presence of Natural Enemies:</u> None mentioned. Speculate that cats, Cooper's hawks, and sharp-shinned hawks will prey on this species.</p>
	<p>2. <u>Competition with native species:</u> Not aggressive in an aviary setting (3). One study in Australia stated the impacts of the species are unknown, and this species feeds mainly upon weed seeds, meaning this species should not have adverse ecological impacts (10). This species has been known to mingle with flocks of house finches, another non-native bird (2). Flocks with a mix of the two species can reach 500 individuals. This species is a host of Megabacteria, a bird disease pathogen (12).</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"/>  <u>Notes:</u> No information available.</p>
II. Environmental Effects	<p>1. <u>Alteration of ecosystem/community composition?</u>  YES <input type="checkbox"/> NO X  <u>Notes:</u></p>
	<p>2. <u>Alteration of ecosystem/community structure?</u>  YES <input type="checkbox"/> NO X  <u>Notes:</u></p>
	<p>3. <u>Alteration of ecosystem/community functions and processes?</u></p>

	YES <input type="checkbox"/> NO X Notes:
	4. <u>Exhibit Parasitism?</u> YES <input type="checkbox"/> NO X Notes:
<b>D. SOCIO-ECONOMIC EFFECTS</b>	
I. Positive Aspects of the Species to the Economy/Society:	Notes: This species has aesthetic appeal. This species is sold in the pet industry, with prices ranging from \$40-900/breeding pair (2).
II. Potential Socio-Economic Effects of Requiring Controls: Positive: Negative:	Notes: Loss of money in the pet trade.
III. Direct and Indirect Socio-Economic Effects of the Animal :	Notes: This animal is sold in the pet trade. This bird brings enjoyment to people who own them.
IV. Increased Costs to Sectors Caused by the Animal:	Notes: n/a
V. Effects on Human Health:	Notes: n/a
VI. Potential Socio-Economic Effects of Restricting Use:	Positive: n/a Negative: Potential loss of money in pet trade.
<b>E. CONTROL AND PREVENTION</b>	
I. Costs of Prevention (please be as specific as possible):	Notes: Species seems to be susceptible to live-trapping. It was over-exploited during the 1800s in Europe by uncontrolled live-trapping for commercial pet trade (4). If over exploitation occurred in Europe, then the same idea could be applied in the US. Banning them from pet trade is another way to reduce future spread. Manual intervention with a team of people going around and trying to over harvest this species could prove costly (wages, travel, etc.).
II. Responsiveness to Prevention Efforts:	Notes: In Europe this species was over harvested, then rebounded after laws were enacted to protect this species (4). Bird appears susceptible to live-trapping.
III. Effective Control Tactics:	Mechanical X Biological <input type="checkbox"/> Chemical <input type="checkbox"/> Times and uses: Trapping and shooting
IV. Minimum Effort:	Notes: Remove individual birds as opportunities present themselves.
V. Costs of Control:	Notes: Undocumented
VI. Cost of Prevention or Control vs. Cost of Allowing Invasion to Occur:	Notes: So far there is not much information on this species. More monitoring may be used to see how these individuals are spreading. In Australia one study claimed that this species has no "adverse ecological impacts" (11).
VII. Non-Target Effects of Control:	Notes: When live-trapping, non-target species can be released.
VIII. Efficacy of Monitoring:	Notes: A good way to monitor this species is through the CBC and possibly the BBS.

## F. REFERENCES

Number	Reference
1	<a href="http://www.finchinfo.com/birds/finches/species/european_goldfinch.php">http://www.finchinfo.com/birds/finches/species/european_goldfinch.php</a>
2	<a href="http://www.umd.umich.edu/dept/rouge_river/eugo2.html">http://www.umd.umich.edu/dept/rouge_river/eugo2.html</a>
3	<a href="http://www.mypets.net.au/flex/european_goldfinch/305/1">http://www.mypets.net.au/flex/european_goldfinch/305/1</a>
4	<a href="http://www.answers.com/topic/goldfinch?cat=technology">http://www.answers.com/topic/goldfinch?cat=technology</a>
5	<a href="http://www.madeirabirds.com/goldfinch_page">http://www.madeirabirds.com/goldfinch_page</a>
6	<a href="http://www.madeirabirds.com/goldfinch_page">http://www.madeirabirds.com/goldfinch_page</a>
7	<a href="http://www.uwgb.edu/birds/wso/madhotline06.htm">http://www.uwgb.edu/birds/wso/madhotline06.htm</a>
8	The proper citation for this article is: S. J. Dinsmore, S. J. and W. R. Silcock. 2004. The Changing Seasons: Expansions. North American Birds 58:324-330. Online.
9	<a href="http://www.invasiveanimals.com/images/pdfs/RangelandsLR.pdf">http://www.invasiveanimals.com/images/pdfs/RangelandsLR.pdf</a>
10	<a href="http://www.umd.umich.edu/dept/rouge_river/eugo.html">http://www.umd.umich.edu/dept/rouge_river/eugo.html</a>
11	Plath, O, E. 1922. Notes on the hybrids between the canary and two American finches. American Naturalist. Vol. 56, 645 p 322. Online.
12	<a href="http://www.petalk.com/megabacteria.html">http://www.petalk.com/megabacteria.html</a>

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**Approved and Completed Date:**