

Current status of European Goldfinch (*Carduelis carduelis*) in the western Great Lakes region

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Abstract

European Goldfinch (*Carduelis carduelis*) is a songbird native to the western Palearctic that is popular as a cage bird. It has a long history of deliberate and accidental releases worldwide, including in the United States. Between

the 1879 to around 1955, this species had small populations in New York state. Another population is apparently taking hold in the western Great Lakes, probably the result of intentional releases by a Chicago-area bird importer.

Introduction

European Goldfinch (*Carduelis carduelis*) is a colorful songbird with a natural distribution across much of the western Palearctic, including Europe, northern Africa, and western and central Asia (Cramp and Perrins 1994, Lever 1987). It has a long history as a cage bird, with mention of the species in captivity dating back to the late 1600s (Birkhead 2003). This species has been successfully introduced in many regions of the world and has persisted in a number of them (e.g., Australia, Bermuda, the Azores) for over a century (Long 1981, Lever 1987, Birds Australia 2005, Rodebrand and Carlsson 2005).

In the United States, one of the first intentional introductions of European Goldfinches apparently occurred in late 1852, when the trustees of the Greenwood Cemetery in Brooklyn, New York released four dozen on the property (Murphy 1945, Lever 1987). The fate of that group is uncertain, but others were released in Hoboken, Hudson County, New Jersey in early 1878 (Chapman 1932, Cruickshank 1942, Austin 1963). These reached their maximum numbers around 1910, and the species was uncommon but probably nesting in Englewood, New Jersey, roughly 18 kilometers farther north, up through 1915 (Griscom 1923, Nichols 1936, Cruickshank 1942). The Hoboken birds were thought to be the source of a colony in Central Park in Manhattan. The first birds appeared in the Park in 1879, nesting fairly regularly there for several decades but diminishing and disappearing between 1907 and 1920 (Hix 1905, Griscom 1923, Chapman 1932, Nichols 1936, Cruickshank 1942, Elliot 1968). Capture of birds for the cage trade may have contributed to the reduction in their numbers (Elliot 1968).

It is presumed the Central Park birds were the founders for populations in Long Island, with an early report of several found at Long Island City in 1889 (Eaton 1914). In 1910, European Goldfinches were found on Long Island at Massapequa, Nassau County

(Cruikshank 1942). At that location, numbers increased for about five years, then declined throughout the 1920s and 1930s (Cruikshank 1942). In 1931, two European Goldfinches were seen in Westbury, about 16 kilometers northwest of Massapequa, and for the next several years, birds were found nesting in nearby Garden City (Nichols 1936). By the late 1930s, as many as a dozen pairs and flocks of nearly two dozen birds were seen on Long Island in southern Nassau County and southwestern Suffolk County (Cruikshank 1942, Levine 1998). However, the housing boom following World War II resulted in habitat loss and a subsequent decline in the Long Island colony, which numbered just under 20 birds as late as 1946 but were apparently gone by about 1955 (Elliot 1968, Levine 1998). They may have nested again in 1975 at Massapequa, and several were seen there in 1976, having been released by a man who found them to be "nervous cage birds and difficult to breed" (Levine 1988, Paxton et al. 1975, 1976).

Continued numerous scattered reports of European Goldfinches across North America are probably attributed to similar releases by hobbyists, with more concentrated "outbreaks" in most areas likely due to private bird dealers, who keep birds in outdoor aviaries from which they can escape, or who release illegally obtained birds to avoid arrest. For example, nearly all species kept by a New Jersey dealer had been seen locally in the wild several years preceding his arrest, after which the reports dwindled (Ryan 1990).

A Chicago-area bird dealer may be the source of an unusual number of reports of European Goldfinches and other cage bird species in the western Great Lakes in recent years. This article summarizes reports of these sightings, as well as recent successful nesting of European Goldfinches in Illinois and Wisconsin.

Methods

Following the discovery of a European Goldfinch in Dearborn, Wayne County, Michigan in early 2003, I posted a page on the Rouge River Bird Observatory web page (RRBO 2006), requesting that people send in sighting reports of European Goldfinches and other European cage birds, retroactive through January 2002. I specified that I was only looking for reports from the Upper Midwestern and northeastern states. To supplement these reports, I also periodically looked through the archives of Internet birding e-mail lists for the western Great Lakes states, seasonal reports in state journals and *North American Birds* (through Volume 62, Issue 3), and various Internet bird forums.

Results

I received over 400 reports of European Goldfinches from twenty U.S. states and five Canadian provinces dating from January 2002 through June 2006. The rest of this article will focus primarily on the 298 reports from western Great Lakes states (Illinois, Wisconsin, Indiana, and Michigan).

Seventy-one per cent of the reports from these four states came from Illinois and Wisconsin. There was a clear concentration of reports from northeastern Illinois and southeastern Wisconsin, with half of the 209 reports from these two states coming from the six counties in this area: Walworth (9), Racine (11), and Kenosha (5), Wisconsin; and McHenry (20), Lake (20), and Cook (43), Illinois. In Wisconsin, there are reports from nearly every county south of a line running approximately through Prairie du Chien, Baraboo, and Oshkosh to Green Bay. Over half the reports from Cook County, Illinois are from the intensively-birded Montrose Point in Chicago.

I received only 16 reports from Indiana, all but one from the northern third of the state, with ten from the northwestern corner. The 73 reports from Michigan were scattered over much of the state, from 44 of the state's 83 counties, without a concentration—geographic or chronological—in the southwestern corner, which might have been expected given the pattern in the other states. Around a quarter of Michigan's reports were from the heavily urbanized southeastern part of the state. About 20 per cent of the Wisconsin and Illinois reports were sightings of multiple birds, most often two individuals, but with up to ten being seen in an area at one time. Table 1 summarizes the reports I received of nesting activity.

Discussion

The reports I received are likely to be only a small fraction of the actual number of European Goldfinches present and breeding in the wild in the western Great Lakes. Most of the reports I received were from non-birders who discovered the birds at their backyard feeders, looked on the Internet for identification or more information, and discovered the link to my request.

In late 2002 or 2003, there were enough reports of European birds circulating in the birding community of the Upper Midwest that people began speculating about the source. It was rumored that an importer in the greater Chicago area had gone out of business and released his stock (Dinsmore and Silcock 2004). The importer's web site listed for sale all of the species that had been reported in the wild. Although that web site did disappear

around that time, the importer did not go out of business and continues to import birds at the present time, and a new web site appeared around October 2006. I was able to obtain import records for this business for the year 2004, which showed the company imported over 20,000 songbirds, about half of them wild caught and the other half captive-raised. Over 12,000 were European Goldfinches. All birds came from several exporters in Russia and arrived in the United States through the port of Los Angeles. Birds are still imported via Los Angeles, with a Los Angeles-area pet store acting as a sales office.

The principal contact for this business in the Chicago area lives in rural McHenry County, Illinois. I received a number of messages from people describing a man who was releasing birds from his property, and they gave his location. None of them knew that he was in the business of importing birds. Some had attempted to contact wildlife authorities to report him, but no action could be taken. As long as the birds are legally imported, there is no federal law prohibiting their release, even if they are not native. Nor are any Illinois state laws targeted at the release of non-native birds.

Considering the proximity of the reported sightings to the residence and quarantine site of this importer, this is probably the source of many, perhaps most, of the birds in that immediate area. However, European Goldfinches are reported regularly from nearly every state and province in North America. Some can certainly be attributed to birds that accidentally escaped or were released by disinterested pet owners. Two more sources are worthy of mention.

First, following heavy media coverage of avian influenza (H5N1) beginning in early 2004, reports surfaced of pet birds being abandoned at shelters or sanctuaries, or simply released (Butcher et al. 2005, Local London 2006). It may be that some cage bird owners or breeders released their birds out of fear of them contracting bird flu, especially if the birds were kept in outdoor aviaries where there was a perceived higher threat.

A release from a breeder might also explain a rash of European bird reports from the eastern Upper Peninsula of Michigan and adjacent areas in northern Ontario in spring 2004 which included not only European Goldfinches (5), but also Eurasian Siskin (*Carduelis chloris*), Linnet (*C. cannabina*), and Chaffinch (*Fringilla coelebs*). These species also occurred in the western Great Lakes focus area (Table 2). However, the pocket of birds from this region, on both sides of Lake Superior, is probably better explained by a separate source or re-

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lease(s), as this cluster does not seem consistent with the pattern of distribution and dispersal exhibited in the Chicago area.

A second source of exotic bird reports is tied to various religious beliefs in which birds are released to seek blessing, to garner good karma, or in other symbolic acts. Over 20 per cent of the Ontario reports I received (without requesting reports from that region) were from the greater Toronto area. Toronto has a substantial population of Buddhists and other practitioners of eastern religions (Statistics Canada 2003), some of whom practice a ritual involving the setting free of live creatures, including birds, which is believed to accrue merit in the afterlife (Hubert 1999, Higbee and Glassner-Shwayder 2004).

Likewise, the concentration of reports in southeastern Michigan could be at least partially attributed to intentional releases. This area has a large Arab (mostly Muslim) population, with the city of Dearborn having the highest concentration of Arabs outside the Middle East (de la Cruz and Brittingham 2003). While Muslims also hold birds in high regard, I was unable to find specific reference to a religious or cultural dogma that involved releasing birds. However, an employee of a PetSmart store in Dearborn had specific knowledge that many Arabic customers purchased small birds just to release them. This, then, was very likely the source of the European Goldfinch that began this whole investigation.

Whatever their provenance, it appears that European Goldfinches are gaining a foothold in the western Great Lakes region. Considering the eventual extirpation of quite long-established populations in New York in the early 1900s, the persistence of the Illinois and Wisconsin birds hardly seems assured. The difference might be, however, the sheer numbers of goldfinches in the region, as well as the fact that they may be continually augmented by new releases, particularly by the local importer.

Table 1. Reports of nesting European Goldfinches in the western Great Lakes, 2003-2006.

County and state	Nearest town	Details
2003		
Cook Co., IL	Chicago	Pair with nesting material photographed at Montrose point in Lincoln Park on 6 Jun.
2005		
McHenry Co., IL	Harvard	A juvenile was photographed on 20 Jul.
2006		
McHenry Co., IL	Hebron	Male and female photographed on 3 Apr, juvenile photographed on 16 Apr
McHenry Co., IL	Marengo	Two adults first seen in early May were seen on 5 Jun feeding four young, which were observed again on 11 Jun.
McHenry Co., IL	Harvard	An adult observed on 1 Jun may have been observed feeding a juvenile on 6 Jun.
Walworth Co., WI/ McHenry Co., IL line	Walworth	Pair over summer 2006, three juveniles seen in August.
Marathon Co., WI	Mosinee	Single adults observed in May and June which appeared to be a pair; on 13 Jul a juvenile was seen.

Habitat loss is credited with the extirpation of the Long Island colony in the 1950s (Elliot 1968, Levine 1998). The region surrounding McHenry County, Illinois is still largely rural and without significant barriers to dispersal. Further, European Goldfinches may find their preferred foods even more widespread today than they were 50 years ago. More than American Goldfinches (*C. tristis*), European Goldfinches specialize on the seeds of composites (Compositae), preferring them half-ripe, and the distribution of these plants governs the movements of the birds (Cramp and Perrins 1994, Hagenmeijer and Blair 1997, Snow and Perrins 1998). Of the 18 European herbaceous plant species listed in the diet of European Goldfinches by Gluck (1985), all

with American Goldfinches for nest materials or nest sites. Whereas American Goldfinches nest late in the season (Middleton 1993), European Goldfinches begin nesting in April or May, with the average first egg date in England of 25 May (Joys and Crick 2004) and egg dates in New York ranging from of 26 April to 4 June (Cruikshank 1942). Historically in the United States, even small flocks (four to six birds) of European Goldfinches preferred to keep to themselves, without fraternizing with American Goldfinches during the non-breeding season, although individual European and American Goldfinches were reported to consort with one another (Austin 1963). Most of the reports I received of European Goldfinches noted that they were with American Goldfinches and other species at feeders.

Although European Goldfinches appear ecologically benign, it is impossible to predict the ecological impact of an established population of any non-native species. In 1999, President Clinton signed an executive order intended to coordinate and enhance federal response to invasive species; the order required the preparation of a management plan. While acknowledging that invasions are unpredictable, the National Invasive Species Management Plan, released in 2001, nonetheless focuses on non-native species that cause "substantial, negative impact to the environment, economies, and human

Table 2. Reports of other European cage bird species from Wisconsin, Illinois, Indiana, and Michigan, 2002 to mid-2006. Species with fewer than two reports not included.

Eurasian Jay (<i>Garrulus glandarius</i>)	2004: Cook Co., IL; Allegan Co., MI; Dodge Co., WI. 2005: Sheboygan Co., WI; Ozaukee Co., WI. 2006: Door Co. WI.
Blue Tit (<i>Parus caeruleus</i>)	2004: McHenry Co., IL; Walworth Co., WI. 2005: McHenry Co., IL; Dunn Co., WI.
Great Tit (<i>Parus major</i>)	2003: McHenry Co., IL (nested); Milwaukee Co., WI. 2004: Cook Co., IL; McHenry Co., IL (same location as 2003, suspected nesting); Milwaukee Co., WI (nested); Racine Co., WI; Walworth Co., WI; Waushara Co., WI (suspected nesting). 2005: Cook Co., IL; Lake Co., IL; McHenry Co., IL; Door Co., WI; Milwaukee Co., WI (same location as 2004, suspected nesting). 2006: Milwaukee Co., WI (two locations, suspected nesting in same location as two previous years).
Chaffinch (<i>Fringilla coelebs</i>)	2002: Cook Co., IL; Porter Co., IN. 2004: Chippewa Co., MI. 2006: DuPage Co., IL; Chippewa Co., MI; Keweenaw Co., MI.
European Greenfinch (<i>Carduelis chloris</i>)	2003: Porter Co., IN. 2004: Allen Co., IN; Porter Co., IL; Cook Co., IL; Door Co., WI. 2005: Cook Co., IL; Kane Co., IL; Lake Co., IL; Winnebago Co., IL; Chippewa Co., MI (?)
Eurasian Siskin (<i>Carduelis spinus</i>)	2004: Chippewa Co., MI; Outagamie Co., WI. 2005: Bay Co., MI.

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health" (NISC 2001). Citizens will have to apply considerable pressure to their state and federal legislators to encourage laws that prohibit the release of any non-native organisms if intentional introductions are to be prevented in the future.

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