Morphological changes in European goldfinches (Carduelis carduelis) released by bird trappers

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Abstract

In Spain, several Autonomous Communities have granted licenses to capture European goldfinches (Carduelis carduelis parva) during the post-breeding period, from August to December. In Galicia (NW Spain) and other Autonomous Communities, after 5–7 months of captivity, many birds are released. We tested the hypothesis that captivity results in biometric and body condition changes which affect the post-release survival of these birds. We used two groups captured in Galicia, the first made up of birds captured for ringing and the second consisting of birds captured by bird-trappers, kept in captivity for 5–7 months and then released. Two-way ANOVA tests were used to test the effect of group and sex on the wing, bill, head, tarsus and tail measurements. Birds held in captivity had shorter wings and longer bills than those captured for ringing. The significance of these morphometric changes is unknown but it is possible that they could have a detrimental effect on foraging behaviour and post-release survival. In light of this, those involved in keeping wild birds in captivity should review their husbandry techniques.

Keywords: animal welfare, biometrics, captivity effects, Carduelis carduelis, European goldfinch, trapped birds

Introduction

Several species of finch have been traditionally regarded as cage birds (Campbell & Lack 1985) and been captured over the centuries to be kept in captivity (Bub 1991). In a number of European countries, it has remained permissible to capture a small number of birds, but there has also been a rather high rate of illegal activity (Kelly et al 2008).

In Spain, the capture of finches was restricted by the Law of Nature Conservation enacted in 1989 and the implementation of EU legislation following Spain’s entry to the EU in 1986. However, several Spanish Autonomous Communities have, in recent years, granted licenses for post-breeding capture of finches. Currently, ten out of 17 Spanish Autonomous Communities allow the capture of these birds, although the conditions and the approved methods are heterogeneous. The total number of finches captured annually in Spain is unknown but could run into several hundreds of thousands.

In Galicia (NW Spain), licenses have been recently granted for the capture of the European serin (Serinus serinus), the European greenfinch (Carduelis chloris), the common linnet (Carduelis cannabina) and the European goldfinch (Carduelis carduelis), although bird trappers generally prefer to capture goldfinches. C.c.parva is the goldfinch subspecies that can be found in the Iberian peninsula (Cramp 1992; Tellería et al 1999). The goldfinches are captured during two periods, one in August and the other in October, using a clap net with lure birds (Bub 1991). Bird trappers prefer to capture juvenile males in order to use them for breeding and to teach them modified songs with the purpose of taking them to singing competitions. From 2001 to 2004, the annual capture quota in Galicia was up to 5–7 finches per person, whereas in other regions of Spain the levels were much higher (Belda et al 2003). During this period, 644 (± 93.7) goldfinches (range 458–755 birds) were caught legally in Galicia each year, although the actual number of captured birds may have been much higher, given the poaching situation in Spain, as well as other European countries (Kelly et al 2008). In Galicia, the license establishes that the birds legally captured have to be released after they have been crossed with other goldfinches and canaries (Serinus canaria) and after the singing contests. Release takes place during the first weeks of the year (January–February) and all birds trapped the previous autumn should be set free, although the number of released birds is actually much lower than those captured in the previous season; this is due, among other reasons, to the mortality associated with captivity. The date and location of the release of goldfinches is established by the environmental authorities of Galicia. Although the objective is to return the birds to their natural habitat, there are a number of factors associated with captivity that could adversely affect their post-release survival.