

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Technical workshop on songbird trade and conservation management,
Bangkok (Thailand), 11 to 14 December 2023

DELETION OF BIRDS FROM CITES APPENDIX III CHANGED GLOBAL TRADE REPORTS AND DYNAMICS

1. This document has been prepared on behalf of the CITES observer organisation European Association of Zoos and Aquaria (EAZA) with the support of Copenhagen Zoo and the University of Southern Denmark (SDU).
2. The document presents preliminary results from an upcoming publication on the effect of the deletion of 114 bird species including 71 songbirds from CITES in 2007 on global trade reports and dynamics to support the technical workshop on songbird trade and conservation management and Decisions 18.256 (Rev. CoP19) to 18.259 (Rev. CoP19).

Summary

- Deletion of 114 bird species from Appendix III by Ghana was partly responsible for the trade drop in the mid-2000s previously attributed solely to the EU import ban on wild birds
- CITES Appendix III listings are effective in regulating and monitoring the trade in highly traded species where the sustainability of trade is in doubt
- CITES Appendix III listing changes affect trade reported in the CITES trade database and result in underestimating trade volumes

Introduction

Records of global regulated bird trade reported in the CITES Trade Database dropped drastically in 2006. This reduction of trade has previously been attributed solely to the EU import ban on wild birds implemented in October 2005 and made permanent in 2007 (Harfoot et al., 2018; Reino et al., 2017). However, Ghana delisted 114 bird species from CITES Appendix III in 2007 just following the ban with repercussions on reported trade (Davies et al., 2022).

Here we analysed global trade data of wild, live birds from the CITES Trade Database and US imports from LEMIS database of the US Fish and Wildlife Service to analyse trade of delisted species before and after their deletion from the CITES.

Results

1. Overall Trade Patterns observed in CITES TDB and LEMIS

- We found that bird species removed from Appendix III by Ghana accounted for a majority of live wild bird trade (2 273 100 individuals, 70.7 %) in the CITES Trade database before their deletion, especially highly traded songbird species (2 134 108 individuals, 66.4 %) (see Tab. 1 for a breakdown of deleted species per avian order).
- None of the species removed from Appendix III by Ghana are considered threatened by the IUCN Red List.
- Species removed from Appendix III by Ghana made up the majority of EU imports (74 %) and also accounted for 48.5 % of non-EU imports recorded in the CITES Trade Database (Fig. 1A,B).
- Total global live bird trade dropped in 2006 and remained lower than pre 2006 with no trade records of species removed from Appendix III by Ghana after 2011.
- In contrast, imports of species removed from Appendix III by Ghana into the US recorded in LEMIS spiked in 2007 going from no individuals traded in 2006 to 39 843 individuals traded in 2007 (Fig. 1C). Trade levels dropped slightly in 2008 but remained high with an average of 17 145 individuals traded annually from 2007-2014.

2. Taxonomic patterns

- Overall songbirds and parrots accounted for the majority of trade reported in the CITES Trade Database (96.8 %, 3,968,505 individuals), with 2,280,216 and 820,166 individuals traded respectively (Fig. 2)
- Parrots were not affected by the deletion event except for one species (*Psittacula krameri*) and while reported wild live bird imports into the EU dropped, trade into non-EU countries did not decrease (Fig 2D,F).
- In contrast, trade in songbirds, which were heavily affected by the deletion event, stopped for both EU and non-EU countries in 2006 (Fig. 2)
- Given the similar prevalence of songbird and parrot trade we would have expected to find a similar trade pattern for non-EU songbird trade as observed for parrots.
- Songbirds dominated US imports in LEMIS following the deletion in 2007 with 182 960 individuals (60.4%) of which songbird species removed from Appendix III by Ghana accounted for 75% (137 160 individuals).

3. Spatial patterns

- Main exporters of bird species removed from Appendix III by Ghana were Senegal, Guinea and Mali (91.4 %) with Ghana only accounting for 0.28 % of trade.

Conclusions & recommendations

Our results show that the delisting of 114 bird species by Ghana in 2007 amplified the global decline of wild bird trade reported in the CITES Trade Database that was previously attributed to the EU import ban on wild birds. Due to the deletion from CITES App-III, permits were no longer required for these species and trade was therefore not monitored in the CITES Trade Database. However, our analyses show that trade in these species continued after 2007. In fact, trade into the US increased and delisted species also appear in the trade in Asia and South America (Su et al. 2016; De Oliveira et al. 2020). Overall, our study highlights the limitations of using the CITES Trade Database for global trade analyses

in birds as well as the effects of listing changes on trade reported in the database. Additionally, our results show how Appendix III listings can help to monitor and regulate trade.

We recommend

- considering Appendix III listings for species identified in need of urgent protections in the international trade or for data collection on the international trade at the CITES technical workshop in Bangkok, 11-14 December.
- considering the underreported trade of African songbirds in the discussions during the workshop.

Data availability

A full list of the 71 deleted songbirds is available in Annex 1 below (p. A1-A3).

Tables & Figures

Table 1 Number of named species delisted by Ghana from Appendix III in 2007 and number of currently listed species per order (as of 2021). Subspecies are included on the species level; family listings were not included. Based on Juergens et al. (*in prep*).

Order	Number of Bird Species in CITES	
	<i>Appendix III delisted in 2007 by Ghana</i>	<i>Listed in Appendixes I, II, & III in 2021</i>
Songbirds (Passeriformes)	71	85
Pigeons & doves (Columbiformes)	17	7
Waterfowl (Anseriformes)	12	18
Pelicans, tropicbirds, cormorants, and relatives (Pelecaniformes)	7	7
Turaco (Musophagiformes)	3	14
Hérons, Ibises, Spoonbills and Storks (Ciconiiformes)	2	4
Gamefowl (Galliformes)	1	49
Parrots (Psittaciformes)	1	353
Total	114	537

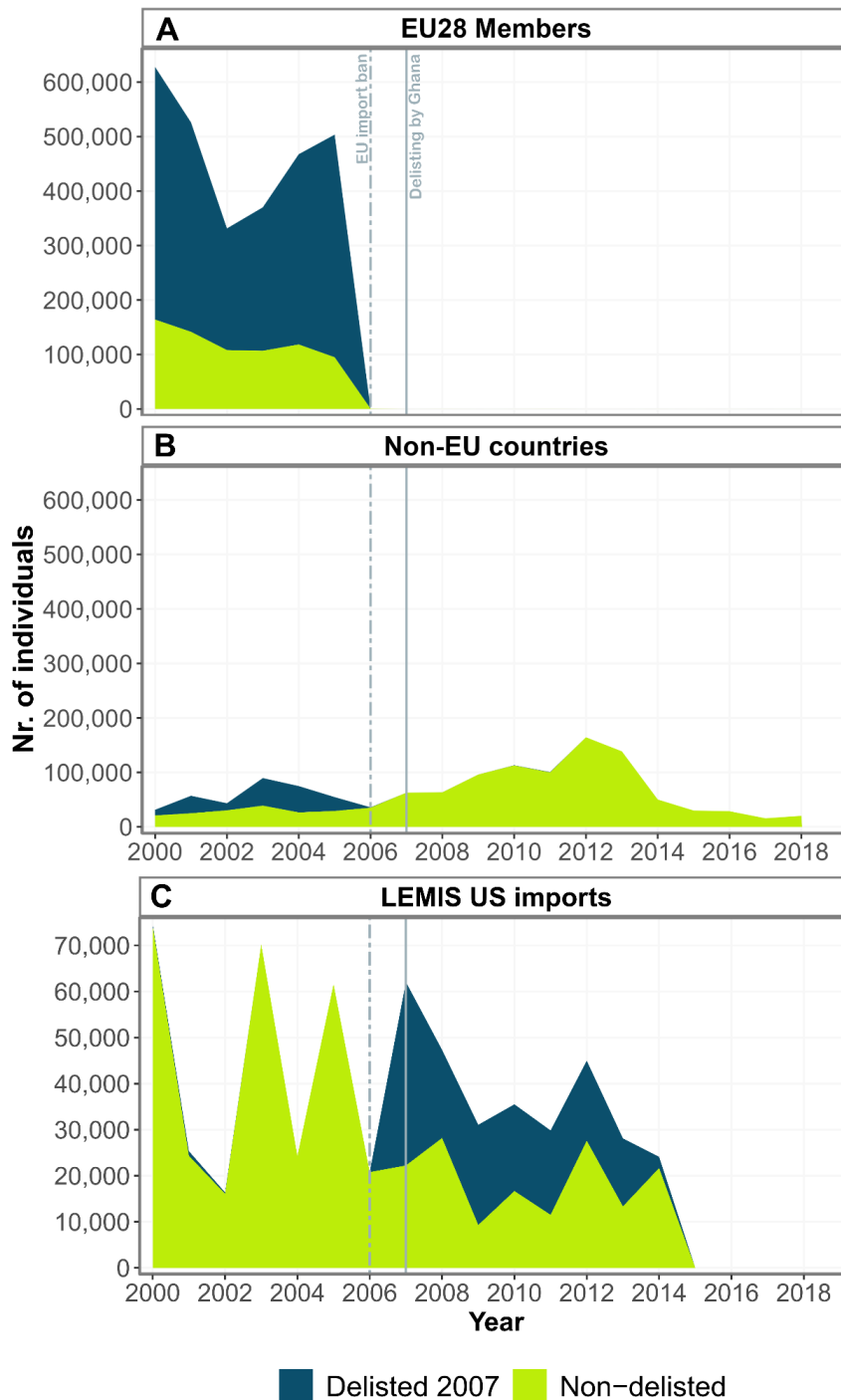


Figure 1 Number of live wild-caught individuals recorded in the CITES TDB and LEMIS between 2000-2018 for the 114 delisted species (dark blue) and non-delisted species (light green) for A) EU28 Member imports reported in the CITES TDB B) imports into non-EU countries reported in the CITES TDB and C) US imports reported in LEMIS. Note that only 88 delisted species were recorded with wild live trade in the CITES TDB and 64 in LEMIS. LEMIS data was only available until 2014. The dashed horizontal line indicates the timing of the EU ban at the end of 2005 and the solid line the 2007 delisting event by Ghana. Note for the 114 delisted species, there are no records in the CITES TDB after 2006 because it is optional to report any import or exports to CITES for non-listed species. Based on Juergens et al. (*in prep*).

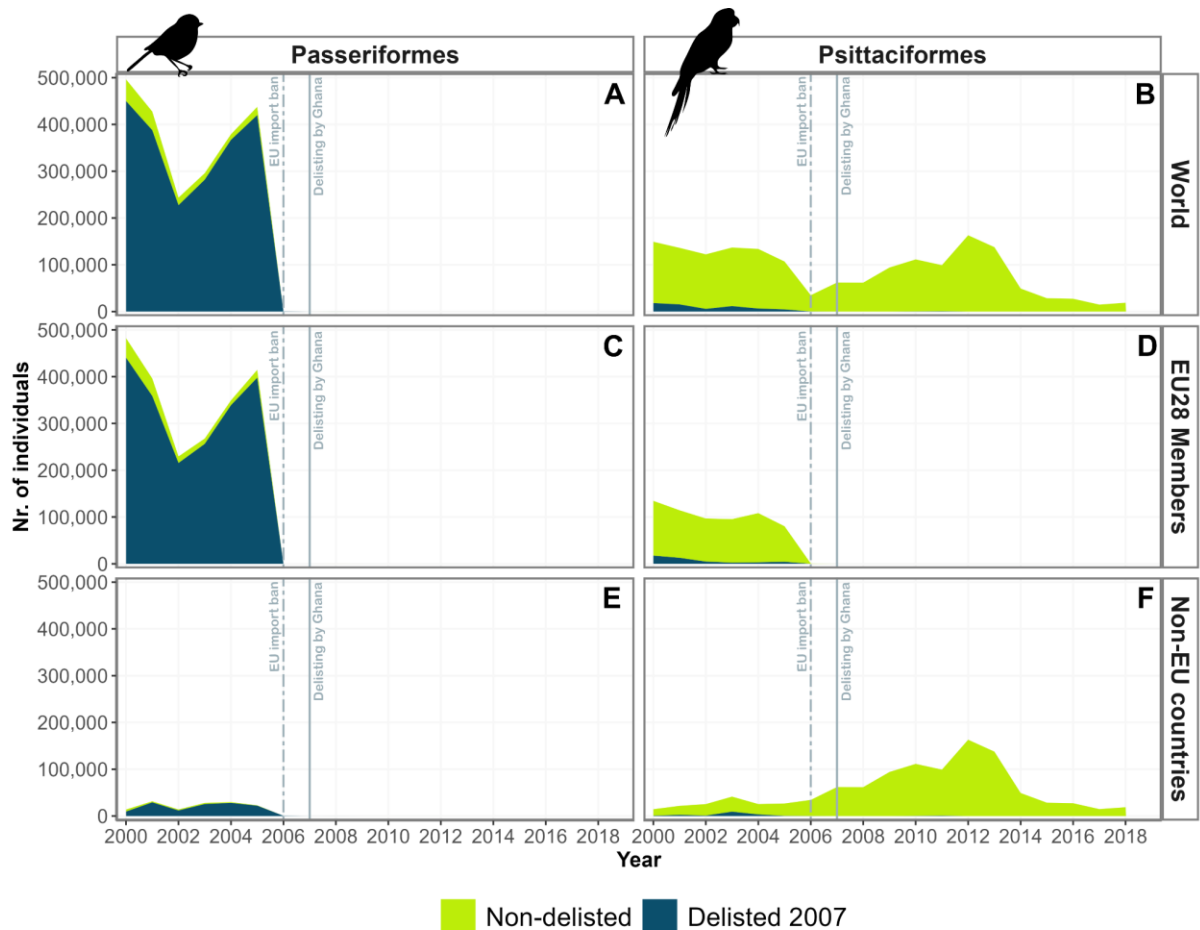


Figure 2 Number of live wild-caught individuals recorded in the CITES Trade Database imported between 2000-2018 split into deleted species (dark blue) and non-deleted species (light green) divided by region: A) EU28 Member and B) non-EU members, and divided by two bird orders: songbirds (Passeriformes), right panels, and parrots (Psittaciformes) leftpanels. The dashed horizontal line indicates the year of the EU ban and the solid line the year of the deletion by Ghana from CITES Appendix III of 71 species of songbirds and only one parrot, the Rose-ringed parakeet (*Psittacula krameri*). Based on Juergens et al. (*in prep*).

References

- Davies, A., Nuno, A., Hinsley, A., & Marin, R. O. (2022). Live wild bird exports from West Africa: Insights into recent trade from monitoring social media. *Bird Conservation International*, 1–14.
- De Oliveira, W.S.L., Borges, A.K.M., De Faria Lopes, S., Vasconcellos, A. & Alves, R.R.N. (2020). Illegal trade of songbirds: An analysis of the activity in an area of northeast Brazil. *J. Ethnobiol. Ethnomed.*, 16, 1–14.
- Harfoot, M., Glaser, S. A. M., Tittensor, D. P., Britten, G. L., McLardy, C., Malsch, K., & Burgess, N. D. (2018). Unveiling the patterns and trends in 40 years of global trade in CITES-listed wildlife. *Biological Conservation*, 223, 47–57.

Juergens et al. (*in prep*). Hidden in plain sight: How CITES listing changes altered global trade patterns and impacted reported global effects of the EU import ban on wild birds.

Reino, L., Figueira, R., Beja, P., Araújo, M. B., Capinha, C., & Strubbe, D. (2017). Networks of global bird invasion altered by regional trade ban. *Science Advances*, 3(11), 1–9.

Su, S., Cassey, P. & Blackburn, T.M. (2016). The wildlife pet trade as a driver of introduction and establishment in alien birds in Taiwan. *Biol. Invasions*, 18, 215–229.

Recommended citation

Juergens, J., Bruslund, S., de Man, D., Staerk, J., Nielsen, R. O., Conde, D. A. (2023). Deletion of birds from CITES Appendix III changed global trade reports and dynamics. CITES Information Document. Technical workshop on songbird trade and conservation management, Bangkok (Thailand), 11 to 14 December 2023.

Annex I

List of 71 songbird species removed from CITES Appendix III in 2007 and the reported trade in the CITES Trade database and LEMIS in the period before and after the deletion event and their current population trends according to the IUCN Red List.

Species	CITES Trade Database (Importer reported quantities)		LEMIS (US Imports)		IUCN Red List Population Trend
	2000-2006	2007-2018	2000-2006	2007-2014	
<i>Crithagra mozambica</i>	396,364	0	0	39,366	Decreasing
<i>Uraeginthus bengalus</i>	243,017	0	0	20,192	Stable
<i>Estrilda troglodytes</i>	189,421	0	0	4,534	Stable
<i>Estrilda melpoda</i>	188,141	0	0	2,041	Stable
<i>Amadina fasciata</i>	183,226	0	0	10,459	Stable
<i>Amandava subflava</i>	122,296	0	0	14,325	Stable
<i>Estrilda caerulescens</i>	95,133	0	0	7,469	Stable
<i>Lagonosticta senegala</i>	91,883	0	0	11,966	Stable
<i>Crithagra leucopygia</i>	74,914	0	0	5,450	Stable
<i>Euplectes afer</i>	48,125	0	0	931	Stable
<i>Euodice cantans</i>	41,665	0	0	3,100	Stable
<i>Lonchura cucullata</i>	38,468	0	0	976	Stable
<i>Vidua macroura</i>	37,371	0	0	983	Stable
<i>Vidua chalybeata</i>	37,127	0	0	1,829	Stable
<i>Euplectes franciscanus</i>	34,968	0	0	0	Stable
<i>Estrilda astrild</i>	33,494	0	0	3,855	Stable
<i>Lonchura bicolor</i>	31,138	0	0	377	Stable
<i>Pytilia phoenicoptera</i>	30,834	75	0	1,213	Stable
<i>Pytilia hypogrammica</i>	30,808	0	0	1,544	Stable

Lagonosticta rubricata	30,547	0	0	587	Stable
Euplectes hordeaceus	25,517	0	0	0	Stable
Ploceus cucullatus	24,895	0	0	719	Stable
Mandingoa nitidula	23,937	0	300	662	Stable
Lonchura fringilloides	12,817	0	0	1,103	Stable
Ortygospiza atricollis	11,534	0	0	520	Stable
Ploceus melanocephalus	8,431	0	0	0	Stable
Spermophaga haematina	6,659	0	0	224	Stable
Euplectes macroura	6,518	0	0	0	Stable
Pyrenestes ostrinus	6,145	0	0	170	Stable
Euplectes ardens	5,646	0	0	40	Stable
Ploceus vitellinus	4,869	0	0	0	Stable
Ploceus luteolus	3,598	0	0	43	Stable
Lagonosticta larvata	2,803	0	0	0	Stable
Ploceus heuglini	1,850	0	0	0	Stable
Nesocharis capistrata	1,735	0	0	0	Stable
Passer griseus	1,200	0	0	0	Stable
Sporopipes frontalis	1,169	0	0	0	Stable
Lagonosticta rara	1,130	0	0	2,080	Stable
Ploceus nigerrimus	1,120	0	0	0	Stable
Quelea erythrops	1,080	0	990	70	Stable
Nigrita bicolor	883	0	0	0	Stable
Lagonosticta rufopicta	500	0	0	0	Stable
Anaplectes rubriceps	300	0	0	0	Stable
Crithagra gularis	300	0	0	7	Stable
Nigrita canicapillus	275	0	0	0	Stable

<i>Nigrita luteifrons</i>	100	0	0	0	Stable
<i>Amblyospiza albifrons</i>	60	0	0	0	Stable
<i>Gymnoris dentata</i>	50	0	0	0	Stable
<i>Malimbus nitens</i>	32	0	0	0	Stable
<i>Nigrita fusconotus</i>	15	0	0	0	Stable
<i>Ploceus nigricollis</i>	0	0	0	0	Stable
<i>Vidua wilsoni</i>	0	0	0	0	Stable
<i>Anomalospiza imberbis</i>	0	0	0	0	Stable
<i>Bubalornis albirostris</i>	0	0	0	0	Stable
<i>Malimbus cassini</i>	0	0	0	0	Stable
<i>Malimbus malimbicus</i>	0	0	0	0	Stable
<i>Malimbus rubricollis</i>	0	0	0	0	Stable
<i>Malimbus scutatus</i>	0	0	0	0	Stable
<i>Parmoptila rubrifrons</i>	0	0	0	0	Decreasing
<i>Pholidornis rushiae</i>	0	0	0	0	Stable
<i>Plocepasser superciliosus</i>	0	0	0	0	Stable
<i>Ploceus albinucha</i>	0	0	0	0	Stable
<i>Ploceus aurantius</i>	0	0	0	0	Stable
<i>Ploceus pelzelni</i>	0	0	0	0	Stable
<i>Ploceus preussi</i>	0	0	0	0	Stable
<i>Ploceus superciliosus</i>	0	0	0	0	Stable
<i>Ploceus tricolor</i>	0	0	0	0	Stable
<i>Vidua interjecta</i>	0	0	0	0	Stable
<i>Vidua larvaticola</i>	0	0	0	0	Stable
<i>Vidua raricola</i>	0	0	0	0	Stable
<i>Vidua togoensis</i>	0	0	0	0	Stable

