

The IUCN Red List of Threatened Species™ ISSN 2307-8235 (online) IUCN 2008: T22720966A119335690 Scope: Global Language: English

Emberiza aureola, Yellow-breasted Bunting

Assessment by: BirdLife International



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Aves	Passeriformes	Emberizidae

Taxon Name: Emberiza aureola Pallas, 1773

Regional Assessments:

• Europe

Common Name(s):

• English: Yellow-breasted Bunting

Taxonomic Source(s):

Cramp, S. and Simmons, K.E.L. (eds). 1977-1994. *Handbook of the birds of Europe, the Middle East and Africa. The birds of the western Palearctic*. Oxford University Press, Oxford.

Assessment Information

Red List Category & Criteria:	Critically Endangered A2acd+3cd+4acd ver 3.1
Year Published:	2017
Date Assessed:	October 1, 2017

Justification:

This species has been uplisted to Critically Endangered because of indications that the overall rate of population decline is even greater than previously thought, and may have become extremely rapid during the past three generations (11 years).

These declines, which apparently began in the west of the breeding range, have since spread eastwards to affect the vast majority or even the entire population. Declines are believed to be driven primarily by trapping in its passage and non-breeding ranges. A programme of coordinated range-wide monitoring and action is badly needed to quantify the magnitude of the decline and reduce the impact of threats. If the rate of decline is subsequently found to be lower, the species must no longer be listed as Critically Endangered regardless of it continuing to be an extremely high priority for conservation action.

Previously Published Red List Assessments

2017 – Endangered (EN) http://dx.doi.org/10.2305/IUCN.UK.2017-1.RLTS.T22720966A110690385.en 2016 – Endangered (EN) http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22720966A90569535.en 2013 – Endangered (EN)

http://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T22720966A49004426.en

2012 – Vulnerable (VU)

2008 – Vulnerable (VU) 2004 – Near Threatened (NT) 2000 – Lower Risk/least concern (LR/lc) 1994 – Lower Risk/least concern (LR/lc) 1988 – Lower Risk/least concern (LR/lc)

Geographic Range

Range Description:

This species once bred across the northern Palaearctic from **Finland**, **Belarus** and **Ukraine** in the west, through **Kazakhstan**, **China** and **Mongolia**, to far eastern **Russia**, **Korea** and northern **Japan**. However, after a precipitous decline it is now thought to have potentially completely disappeared from Finland, Belarus, Ukraine and large parts of Russia (Kamp *et al.* 2015). In the autumn, birds stop-over in large numbers to moult in the Yangtze Valley, China, before continuing on to their winter quarters. It winters in a relatively small region in South and South-East Asia, which includes eastern **Nepal**, north-eastern **India**, **Bangladesh**, **Myanmar**, southern China, **Cambodia**, **Laos**, **Vietnam** and **Thailand** (Byers *et al.* 1995). It was formerly one of the most abundant breeding passerines across vast swathes of Siberia, but although there have been no systematic surveys, a severe decline has been noted in most breeding areas and it has completely disappeared from parts of its former breeding range since the early 1990s (Kamp *et al.* 2015). No birds have been recorded breeding in Finland since 2009, and its range has contracted northwards by 300 km in Kazakhstan since the late 1990s, although it does persist in some areas of Kazakhstan, such as along the Irtysh river near Irtyshsk (R. Ayé *in litt.* 2013). It is estimated to have declined by 95-99% in European Russia between 2000 and 2012 (BirdLife International 2015).

Declines have been reported in the Moscow, Novgorod, Kostroma, Ulyanovsk and Baikal regions (A. Mischenko *in litt.* 2012), whilst very rapid declines in the Tyumen region were reported in 2011 (J. Kamp *in litt.* 2012), suggesting a massive decline in the core range (M. Flade *in litt.* 2007). Surveys in 2012 and 2013 suggest that the species has nearly or completely disappeared from Tyumen province in Western Siberia, which appears consistent with an impression of a steep decline across Western Siberia (J. Kamp *et al. in litt.* 2013). In contrast, recent surveys within and outside protected areas in Amur and Chabarovsk regions, suggest that the species is faring better in the east of its breeding range, with an estimate of 100-150 breeding pairs in Muraviovka Park (c.6,500 ha) in 2013, although anecdotal evidence indicates a decline in these areas since the 1990s (J. Kamp *et al. in litt.* 2013). Severe declines have also been noted in Hokkaido, Japan and Mongolia (Tamada *et al.* 2014, S. Chan and O. Goroshko *in litt.* 2003, Tamada 2006, M. Gilbert, A. Mischenko and J. Kamp *in litt.* 2007). Kamp *et al.* (2015) have estimated that between 1980 and 2013 the population may have declined by 84.3-94.7%, with an eastwards range retraction of 5,000 km.

It no longer occurs in "swarms" at migration watch-points such as Beidaihe, China, and although a range-wide survey is required, numbers at wintering sites throughout its range have also shown rapid declines over the last twenty years (S. Chan, M. Williams, J. W. Duckworth and N. Moores *in litt*. 2003, T. Evans, M. Gilbert, M. Williams and S. Chan *in litt*. 2007). Based on evidence from wintering grounds in Cambodia the species is said to be clearly declining (T. Gray *in litt*. 2013). Historically, it was noted to be common on the central plain, but is now considered scarce away from the Tonle Sap area, and surveys

of birds used in "merit releases" at Phnom Penh riverfront suggest a steep decline in this species since the mid-1990s in the Mekong-Bassac floodplain, where most merit-bird trappers operate (F. Goes *in litt*. 2013). Furthermore, there has been a lack of records from south-eastern Cambodia since the late 1990s, suggesting that it is very rare and perhaps close to extirpation in that region (F. Goes *in litt*. 2013). In Nepal, declines in the population and number of localities occupied have been noted since 1990 (C. Inskipp and H. S. Baral *in litt*. 2013, Inskipp *et al*. 2016). It also appears to have declined at the Hail Haor wetland in north-eastern Bangladesh since the mid-1980s (P. Thompson *in litt*. 2013, 2017). It should be noted that interpretation of the species's status in its non-breeding range based on the usually fragmentary information available is hindered by the erratic appearance of very large flocks (J. W. Duckworth *in litt*. 2013).

Country Occurrence:

Native: Bangladesh; Cambodia; China; Hong Kong; India; Japan; Kazakhstan; Korea, Democratic People's Republic of; Korea, Republic of; Lao People's Democratic Republic; Malaysia; Mongolia; Myanmar; Nepal; Pakistan; Russian Federation (Central Asian Russia, Eastern Asian Russia, European Russia); Singapore; Taiwan, Province of China; Thailand; Viet Nam

Possibly extinct: Finland

Vagrant: Bahrain; Belarus; Belgium; Brunei Darussalam; Cyprus; Czech Republic; Denmark; Egypt; Estonia; France; Germany; Greece; Iran, Islamic Republic of; Ireland; Israel; Italy; Jordan; Latvia; Malta; Netherlands; Norway; Oman; Philippines; Poland; Portugal; Saudi Arabia; Spain; Sweden; Syrian Arab Republic; Turkey; United Arab Emirates; United Kingdom; United States

Distribution Map

Emberiza aureola



Range



Compiled by:

 $\mathsf{BirdLife}$ International and Handbook of the Birds of the World (2016)





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Population

In Europe, the breeding population was estimated to number 20,000-100,000 breeding pairs, equating to 60,000-300,000 individuals (BirdLife International 2004). Europe, at least formerly, formed 25-49% of the global range. The European population is now estimated to number just 120-600 mature individuals (BirdLife International 2015).

Trend Justification

There is widespread evidence from surveys and anecdotal observations of very rapid declines and extensive range contractions. The European population is estimated to be decreasing by 80% or more in 10.8 years (three generations) and by 25% or more in 3.6 years (one generation) (BirdLife International 2015). Across the range of the species it is estimated to have declined by 84.3-94.7% between 1980 and 2013 (Kamp et al. 2015). Assuming a constant rate of decline over this period, this would represent a 45.4-61.8% decline over 3 generations (10.8 years). However, declines are thought to have been very slow initially, and to have increased latterly (see Kamp et al. 2015). Reanalysing the data using in Kamp et al. (2015) over the 11 year period 2002-2013 (2013 being the last year with data), looking at the model-predicted values and expressing 2013 as a proportion of 2002 results in a decline of 70-89% for the 11 years, depending on the area used to extract densities to numbers (J. Kamp in litt. 2017). It would be preferable to fit the a linear model to predict abundance as a function of year, but there are not enough available data from 2002-2013 to do this reliably (many sites have only 1-3 years of data out of the 11, and at many others the species was already extinct or almost so). From the sites that do have data for the 11-year period, the decline was 99-100% at three sites and slightly less severe at others, e.g. c.84% decline between 1999-2013 at one site and c.50% decline at another (J. Kamp in litt. 2017). On this basis, it is now thought likely that the range-wide decline exceeded 80% in the period 2002-2013, but it is not possible to be certain due to a lack of data. If declines east of Lake Baikal were closer to 50% during this time, the overall rate of decline may not have exceeded 80%. If declines averaged 80% east of Lake Baikal, then the overall range-wide decline likely exceeded 90% in this period (J. Kamp in litt. 2017). On this basis, the rate of decline over three generations could lie within the range 50-79% or 80-99%, and on a precautionary basis the higher band is used here.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

It breeds in wet meadows with tall vegetation and scattered scrub, riverside thickets and secondary scrub. It winters in large flocks in cultivated areas, rice fields and grasslands, preferring scrubby drywater rice fields for foraging and reedbeds for roosting (T. Gray *in litt.* 2007). The breeding season is normally from the second half of June to the beginning of July. The nest is built by the female alone and is placed either on the ground in a depression under tussocks or roots or slightly above ground in well covered vegetation. It is constructed of dry grass and stalks lined with soft grass, rootlets and sometimes hair. Clutch size can vary between three and seven but most commonly four to five. During the breeding season it feeds mainly on invertebrates and at other times it will feed on seeds and other plant material. The species is migratory, wintering from central and eastern Nepal, Bangladesh, north-east India east to south-east China (Guangdong) and Taiwan (Province of China), south to the north Malay Peninsula and south-east Asia (Copete and Sharpe 2016).

Systems: Terrestrial, Freshwater

Threats (see Appendix for additional information)

Since many populations on pristine breeding grounds have dropped rapidly, the decline is likely to be driven by excessive trapping at migration and, in particular, wintering sites (Kamp et al. 2015, S. Chan in litt. 2003, 2007, P. Round in litt. 2003, M. Williams in litt. 2007). Roosting flocks in reedbeds are disturbed and then caught in mist-nets, they are cooked and sold as "sparrows" or "rice-birds"; this practice was formerly restricted to a small area of southern China, but has now become more widespread and popular owing to increasing affluence, and hunters now have to travel widely to find sufficient birds (M. Lau in litt. 2007, M. Williams in litt. 2007, S. Chan in litt. 2007). From 1992 onwards, an estimated several thousand individuals of this species were caught for the annual food festival in Sanshui City, southern China (Gao Yuren 1996). This practice was banned in 1997, but a black market in birds still persists and a huge number of birds are still sold annually (see Kamp et al. 2015), including around 10,000 birds sold daily in a single market in Sanshui (Chan 2004). In 2008, one shipment of 4,300 individuals of this species was reportedly confiscated in Zhejiang province en route to Guangdong province, and the species is said to remain a famous delicacy in southern China (per M. Zhang in litt. 2013). Likewise, the species is considered a delicacy in Cambodia (F. Goes in litt. 2013) and is trapped to be sold to restaurants in Nepal (C. Inskipp and H. S. Baral in litt. 2013). In China, thousands of males are also stuffed and sold as mascots, since their presence in the home is thought to confer happiness (A. Mischenko in litt. 2012). At least locally, for example in Cambodia, birds are trapped for "merit release" in temples (Gilbert et al. 2012, J. C. Eames in litt. 2007, F. Goes in litt. 2013).

Agricultural intensification, the shift to irrigated rice production and consequent loss of winter stubble has reduced the quality and quantity of wintering habitat, and the loss of reedbeds has reduced the number of available roost sites (T. Evans *in litt.* 2007, J. Tordoff *in litt.* 2007, J. C. Eames *in litt.* 2007). Declines caused by pressures on the wintering grounds are compounded by a reduction in habitat quality on the breeding grounds in parts of its range, particularly drying of meadows caused by changes in the flow pattern of rivers, a result of dam construction upstream (O. Goroshko *in litt.* 2003, J. Kamp *in litt.* 2007). Declines in Nepal have also been partly attributed to changes in agricultural practices since the 1980s, notably sharp increases in pesticide use (Inskipp and Baral 2011).

Conservation Actions (see Appendix for additional information)

Conservation and research actions underway

CMS Appendix I; It was included in the African-Eurasian Migratory Landbirds Action Plan (AEMLAP) (African-Eurasian Migratory Landbirds Working Group 2014). It is counted occasionally as part of ongoing IBA monitoring in a few sites. After media exposure of the crisis there was an attempt to clamp down on illegal trade in this species (S. Chan *in litt.* 2013), but this practice likely still persists (see Kamp *et al.* 2015). There is ongoing research on Sakhalin to find out if difference in migration strategies (e. g. key stopover and wintering sites) is responsible for contrasting sustainability of different populations. The study uses stable isotopes sampled from free-ranging birds and collection specimens, and geologger tracking of sustainable populations. (P. Ktitorov *in litt.* 2017).

Conservation and research actions proposed

Implement a programme of co-ordinated range-wide monitoring at breeding, passage and non-breeding sites, in order to quantify the rate of decline. Through awareness campaigns, reduce the demand for the species as a food item, mascot and merit-bird. Research its precise habitat requirements on the wintering grounds. Protect sites which still hold large numbers on the wintering grounds. Better enforce legislation against illegal trapping and trade (J. Kamp *in litt.* 2016).

Credits

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External Resources

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Appendix

Habitats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
3. Shrubland -> 3.3. Shrubland - Boreal	Breeding	Suitable	No
3. Shrubland -> 3.3. Shrubland - Boreal	Non- breeding	Suitable	No
4. Grassland -> 4.4. Grassland - Temperate	Breeding	Suitable	No
4. Grassland -> 4.4. Grassland - Temperate	Non- breeding	Suitable	No
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Breeding	Suitable	No
5. Wetlands (inland) -> 5.1. Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	Non- breeding	Suitable	No
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	Breeding	Suitable	No
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	Non- breeding	Suitable	No
14. Artificial/Terrestrial -> 14.1. Artificial/Terrestrial - Arable Land	Non- breeding	Suitable	Yes

Threats

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem str	esses -> 1.2. Ecosyster	n degradation
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	Whole (>90%)	Very rapid declines	High impact: 9
	Stresses:	2. Species Stress	es -> 2.1. Species mor	tality
9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.3. Herbicides and pesticides	Ongoing	Majority (50- 90%)	Slow, significant declines	Medium impact: 6
	Stresses:	1. Ecosystem str	esses -> 1.2. Ecosyster	n degradation

Conservation Actions in Place

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: Yes
In-Place Land/Water Protection and Management
Conservation sites identified: Yes, over entire range
Occur in at least one PA: Yes
Invasive species control or prevention: No
In-Place Species Management
Successfully reintroduced or introduced beningly: No
Subject to ex-situ conservation: No
In-Place Education
Subject to recent education and awareness programmes: No
Included in international legislation: Yes
Subject to any international management/trade controls: No

Conservation Actions Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions Needed
1. Land/water protection -> 1.1. Site/area protection
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level

Research Needed

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Research Needed

1. Research -> 1.3. Life history & ecology

2. Conservation Planning -> 2.1. Species Action/Recovery Plan

3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km ²): 7390000
Continuing decline in extent of occurrence (EOO): Yes
Extreme fluctuations in extent of occurrence (EOO): No
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 0
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
Continuing decline in subpopulations: Unknown
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: No
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 3.6
Movement patterns: Full Migrant
Congregatory: Congregatory (and dispersive)

The IUCN Red List Partnership



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