THE STATE OF EUROPE'S COMMON BIRDS 2007

EBCC European Bird Census Council

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Summary

European common bird trends and indices were updated in 2007 using data from 20 countries, covering the period 1980 to 2005. Indices and trends were produced for 124 species; of these 56 have declined, 29 have increased and 27 have remained stable. The trends for 12 species were classified as uncertain, mainly due to the lack of available data.
The species were classified into broad categories according to their characteristic habitat in Europe.
A new approach based on the classification of species within bio-geographical regions in Europe was applied, which resulted in 33 species classified as common farmland birds and 28 as common forest birds, with 63 other species regarded as habitat generalists or specialists of other habitat types.
The data analysis confirmed that farmland birds are in decline throughout Europe – the multi-species index (indicator) of European common farmland birds shows a decline of 44%. Five of the ten common European species showing the greatest declines are species characteristic for agricultural habitats (including Grey Partridge and Northern Lapwing). A comparison of new and old EU Member states shows that although farmland birds were performing better in new EU countries, their trends appear to be worsening in recent years, now mimicking the trends in old EU countries.
Although the multi-species indicator for common forest birds in Europe has also declined, it is much less than the decline in common farmland birds, although still significant. The common forest bird trends exhibit different patterns across regions, declining most in northern and southern Europe while showing stability in central and eastern Europe. The increased number of species indices allows for analysis of population trends of species characteristic of other habitat types, such as urban habitats or inland wetlands. However, the development of potential new indicators for other habitats needs further research.
Improved capacity enabled analysis of larger amount of data and due to this European trends of several species were produced for the first time. Apart of greater robustness and higher quality of indicators, perhaps surprising declines of some species were found. Surprising declines in the trends of some species were detected, including Meadow Pipit and Crested Tit. It may be that these species, although considered secure at the continental level, may be showing signs of declines that could require further study.
All outputs, including details on the methods, are available at www.ebcc.info/pecbm/html.

The Crested Tit is one of the species coverd by PECBMS for the first time in 2007. Photo by I. Mikšík (natureblink.com).

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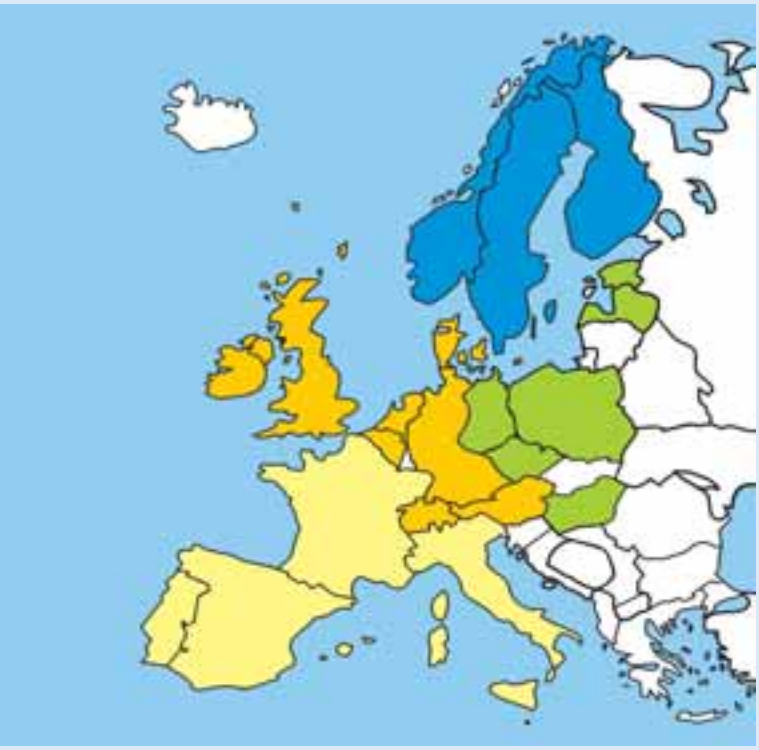
This report presents the results of the third update of the trends of common bird species in Europe by the Pan-European Common Bird Monitoring Scheme (PECBMS). The trends and indices presented in this report cover 20 countries and time period 1980 to 2005, although data back to the 1960s are available from some European countries. Indicators of birds characteristic of two main habitat types were also updated using an improved species habitat classification. The aim is to publish updates on regular annual basis, to improve geographical coverage, increase the number of species and to explore the possibility of producing indicators of other habitats.



Map 1: The four European regions and the countries providing the data within these regions. The numbers in parentheses show the first year of data each national survey provides. North Europe: Finland (1983), Norway (1995), Sweden (1975); West Europe: Austria (1998), Belgium (1990), Denmark (1976), former West Germany (1989), Ireland (1998), Netherlands (1990), Switzerland (1999), United Kingdom (1966); South Europe: France (1989), Italy (2000), Portugal (2004), Spain (1996); Central & East Europe: Czech Republic (1982), Estonia (period 1983-2000, limited number of species), former East Germany (1991), Hungary (1999), Latvia (1995), Poland (2000).

Methods

Population trend information for 124 selected terrestrial common breeding birds was derived from annual surveys, spanning different time periods, from 20 European countries organised through the PECBMS. Data from the new common bird monitoring scheme in Portugal were used for the first time. The computer package TRIM (www.ebcc.info) (Pannekoek & van Strien 2001), which allows for missing counts by estimation and yields yearly indices and standard errors using Poisson regression, was used to calculate national species indices and then combine these into supranational indices of species, weighted by estimates of national population sizes. Weighting allows for the fact that different countries hold different sizes and proportions of each species European population. For a full description of the methods see Van Strien et al. (2001) and Gregory et al. (2005). National population estimates were taken from Birds in Europe 2 (BirdLife International 2004). Although national schemes differ in survey methods, these differences do not influence the supranational results because the indices are standardised before being combined.

In 2007, an improved hierarchical imputation procedure was used to calculate supranational indices for each species, which were then combined (on a geometric scale) to create multi-species indicators. Four regions of Europe were used in the calculation of indices - see Map 1. We plan to develop further this system based on bio-geographical regions in the future.

For this latest set of European indices, 124 species were classified as 'common farmland species', 'common forest species', or 'other common species'. To reflect regional variation, species classification was based on assessments within the bio-geographical regions (Atlantic, Boreal, Continental and Mediterranean), which were then combined to create a single European classification. This procedure was accepted at the PEBCMS workshop in Prague in 2005. Regional coordinators were responsible for producing the regional species lists, in cooperation with the relevant experts. Selection was based on species being: (1) abundant and widespread - species with ≥ 50,000 breeding pairs in Europe were considered as widespread; (2) characteristic of farmland or forest (or common generalists) using an assessment of predominant regional habitat use; characteristic species are those where ≥ 50% of the regional population utilises a particular habitat for breeding or feeding. For details of the species classification see www.ebcc.info/pecbm.html. Extended data quality control included checks on whether data are available from countries which hold at least 50% of the European population of a species and whether a species national index is representative of the national population. At an indicator level, species with a European index of low precision and unjustified extreme fluctuations were excluded from the European dataset. Similar checks have been performed at all other levels, including regional indicators.

For details and quantitative criteria of the data quality control, see www.ebcc.info/pecbm.html.

Marsh Tit is one of the declining forest species. Photo by J. Ševcík (sevcikphoto.com).

Indicators

The latest set of common European bird indicators highlights the sharp decline of farmland birds. Across Europe, from 1980 to 2005, common farmland birds have fallen on average by 44%. This decline is evidence of the environmental degradation that has occurred across European farmland, particularly through increased specialization and intensification of agricultural methods.

The differences in farmland bird population trends in the old and new EU Member states appears to be diminishing. The slow decline in the old EU countries since 1990 continues, while the recovery of farmland birds in the new EU countries until the mid 1990s has now been followed by a continuous decline. In the future there is a likelihood of rapid farmland bird declines in the new EU Member states that hold some of largest densities of farmland birds in Europe. The results indicate that the farmland bird declines in new EU Member states now mirror those in the old EU Member states.

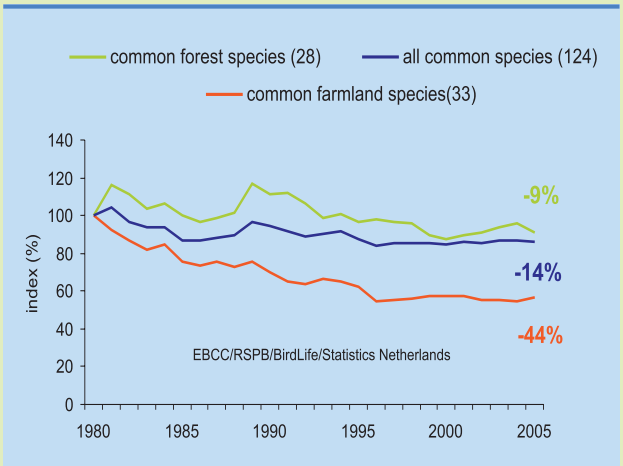


Figure 1 - The wild bird indicator for Europe.
The numbers in parentheses show the numbers of species in each indicator.

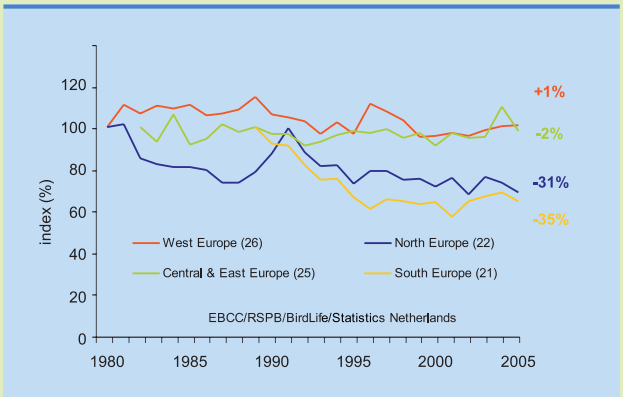


Figure 2 - Regional indicators of forest birds in the four European regions. The numbers in parentheses show the numbers of species in each indicator.

Common forest birds have also declined across Europe, with numbers having fallen by 9% between 1980 and 2005. While the decline in farmland birds has occurred throughout Europe, the forest birds decline is concentrated in two out of the four regions. Populations have been largely stable in the west and east of Europe, but in north and south Europe forest birds have shown considerable declines. In northern Europe they are thought to be threatened by highly intensive forestry exploitation and in the south, where the trends are much more uncertain, perhaps by wild fires and unregulated logging. For instance, forest cover and forest age have increased in the Czech Republic during last decades, which explains the observed increase in populations of forest birds here (Reif et al. 2007). It is not yet known whether the results from the Czech Republic apply to other central and eastern European countries.
All regional indicators graphs are based on single European species classification.


Broad-leaved forest by O. Šnytr.


Lesser Spotted Woodpeckers declined steeply by 80% until 1999, but seem to have stabilised since then. Photo by T. Bělka (birdphoto.eu).

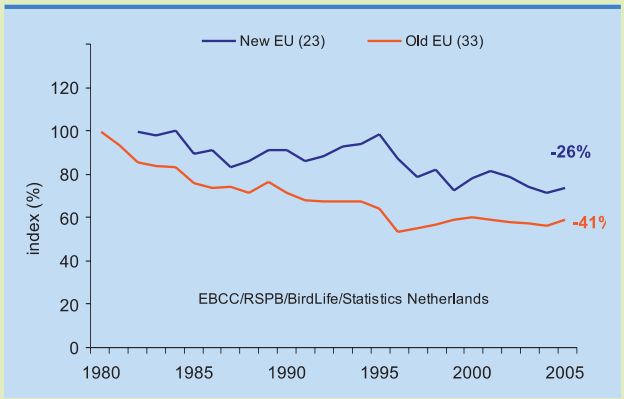


Figure 3 - The farmland bird indicator for the old EU countries and the new EU Member states, which joined the EU in May 2004. Trends of the new EU countries are available from 1982 to 2005. The numbers in parentheses are the numbers of species in the indicators.

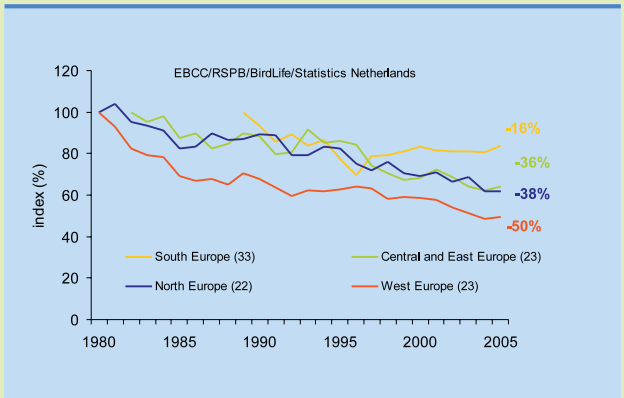


Figure 4 - Regional indicators of farmland birds in the four European regions. The numbers in parentheses are the numbers of species in the indicators.

The use of herbicides and other pesticides reduces the amount of invertebrates available for Grey Partridge chicks, leading to lower survival. Additionally, changes in farmland landscape structure (such as the loss of field margins) have contributed to the decline. Photo by D. Jirovský (wildbirdphoto.eu).

Species

The analysis of European species trends shows that almost half of species in our data set are in decline – according species trends classification, which takes into account precision of trend estimates (see Box Trend classification on page 15), 54 species have declined moderately and two species steeply. On the other hand, 28 species have increased moderately and one species steeply, 27 species have been found stable in period 1980 – 2005. Relatively low number of species (12) has their long term trend classified as uncertain.

Crested Larks in Europe declined by 95% since 1980. Photo by T. Bělka (birdphoto.eu).

Table 1. The ten species that have shown the greatest declines in Europe between 1980 and 2005.

Species		habitat	annual change (%)
Galerida cristata	Crested Lark	farmland	-14
Perdix perdix	Grey Partridge	farmland	-7
Dendrocopos minor	Lesser Spotted Woodpecker	forest	-7
Oenanthe oenanthe	Northern Wheatear	other	-5
Jynx torquilla	Eurasian Wryneck	other	-5
Vanellus vanellus	Northern Lapwing	farmland	-4
Parus montanus	Willow Tit	forest	-4
Luscinia megarhynchos	Common Nightingale	other	-4
Streptopelia turtur	Eurasian Turtle Dove	farmland	-4
Serinus serinus	European Serin	farmland	-3

Annual change is an average change in numbers per year in %. Those species with European trend data available from 1980, 1982 or 1983 were only used and species whose trend was classified as uncertain (see the Trend classification definitions on page 15 for details) were excluded.

Perhaps not surprisingly, five of the ten species that have shown the greatest declines are species characteristic for farmland. Agriculture intensification is the main cause of the decline in farmland birds, as shown for example for Grey Partridge *Perdix perdix*. The steep declines of Eurasian Turtle-dove *Streptopelia turtur* and Northern Lapwing *Vanellus vanellus* have been reported in the previous PECBMS report (PECBM 2006). Position among the most declining common bird species poses a warning signal on future of these species in Europe. European Serin *Serinus serinus*, Lesser Spotted Woodpecker *Dendrocopos minor*, Willow Tit *Parus montanus* and Common Nightingale *Luscinia megarhynchos*, are all classified as Secure in Birds in Europe 2 (BirdLife International 2004), but are among the ten species that are currently showing the greatest declines in Europe. Although the PECBMS and Birds in Europe 2 differ in geographical coverage,

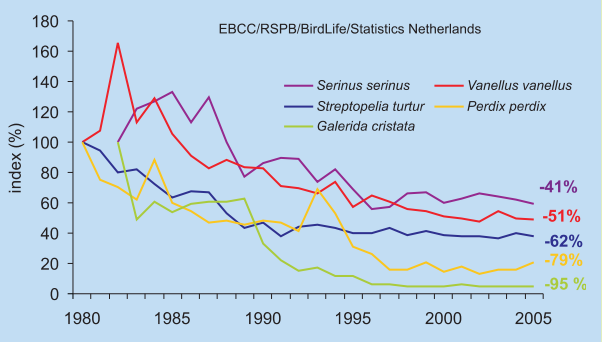


Figure 5 - Trends of the five farmland species among the ten that have shown the greatest declines in Europe (see Tab.1 on this page).

(the PECBMS does cover a limited number of countries and lacks data from southeast and east Europe), these species however deserve attention as their declining trends may not have been detected in Birds in Europe 2.

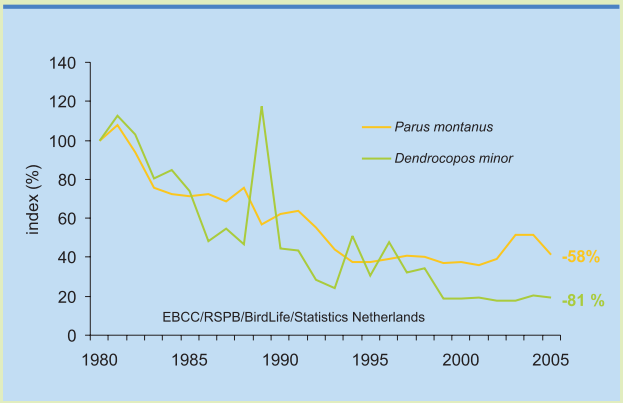


Figure 6 - Trends of the two forest specialists that are among the ten species showing the greatest declines in Europe (see Tab.1 on page 7).

Lesser Spotted Woodpecker and Willow Tit both require deciduous forests with old trees and dead wood. Both species have shown a steeper decline in western Europe than in central and eastern Europe. The fact that both species are residents suggests that the quality of forest, particularly deciduous forest, may be a factor in the different trends within the European regions.

The decline of Northern Wheatear *Oenanthe oenanthe* can be linked to agricultural intensification and habitat loss due to cultivation (Hagemeijer & Blair 1997), although this species, as with other long-distance migrants, may be experiencing problems during migration or in the wintering range.

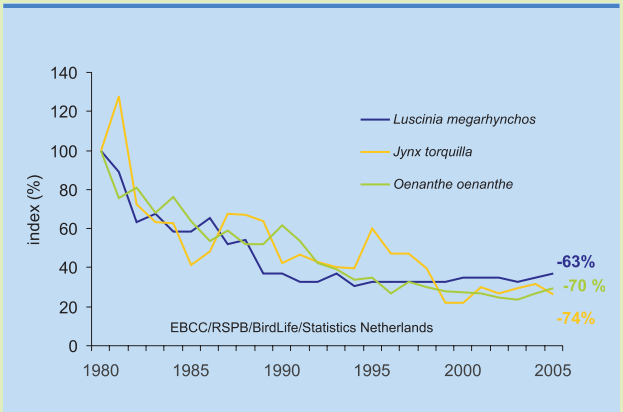


Figure 7 - Trends of the other three species among the ten that have shown the greatest declines in Europe (see Tab.1 on page 7).

Northern Wheatears declined in Europe by 70% since 1980. Photo by T. Bělka (birdphoto.eu).

Common Nightingale has declined in south and west Europe, although in central and east Europe the species has continued to increase. Photo by Z. Tunka (birdphoto.eu).

Differences in the Willow Tit population trends between regions suggest breeding habitats of this rather sedentary species are in a better state in central and eastern Europe.

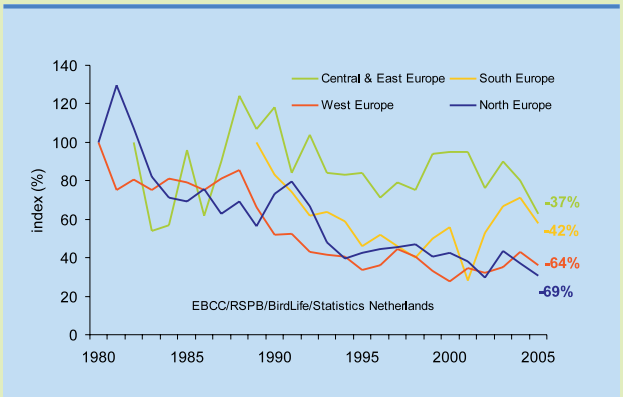


Figure 8 - Regional trends of the Willow Tit *Parus montanus* in Europe.

Different regional trends were also found with Common Nightingale; the species being rather stable in southern Europe, declining in western Europe and increasing in central and eastern Europe. Since this species is a long-distance migrant wintering south of Sahara, the reasons for the different regional trends could be related to conditions along migration routes or in the wintering range, or differences in the quality of breeding habitat between regions.

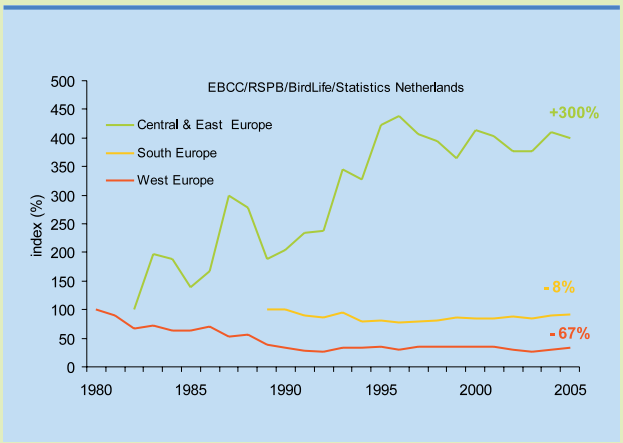


Figure 9 - Regional trends of Common Nightingale *Luscinia megarhynchos* in Europe.

Both short- and long-term trends of Yellowhammers show moderate decline in Europe. Photo by T. Bělka (birdphoto.eu).

Legend for Tables 2-4 on pages 11-14:
Long/short-term trend – change (in %) in an index value between first and last year of a time period.
Long/short-term annual change – average percentage change per year.
Long-term – 1980-2005, short-term – 1990-2005.
Class. – Trend classification: ↑↑ strong increase, ↑ moderate increase, - stable, ↓ moderate decline, ↓↓ steep decline, ? uncertain.
For details on species trend classification see the box Trend classification on page 15.
Migratory status: sd – short-distance migrant or resident, ld – long-distance migrant.
For more details on species trends including standard errors see www.ebcc.info/pecbm.html.

Table 2. The trends of common farmland birds in Europe.

Species		long-term trend (%)	long-term annual change (%)	long-term class.	short-term trend (%)	short-term annual change (%)	short-term class.	migratory status
Alauda arvensis	Eurasian Skylark	-47	-2	↓	-26	-2	↓	sd
Anthus campestris	Tawny Pipit	*	*	*	-60	-8	↓↓	ld
Anthus pratensis	Meadow Pipit	-57	-2	↓	-32	-3	↓	sd
Calandrella brachydactyla	Greater Short-toed Lark	*	*	*	-24	-3	?	ld
Carduelis cannabina	Eurasian Linnet	-54	-2	↓	-40	-4	↓	sd
Ciconia ciconia	White Stork[1]	119	3	?	70	3	↑	ld
Corvus frugilegus	Rook	37	1	↑	18	1	↑	sd
Emberiza cirlus	Cirl Bunting	*	*	*	57	4	↑	sd
Emberiza citrinella	Yellowhammer	-40	-2	↓	-20	-1	↓	sd
Emberiza hortulana	Ortolan Bunting	-18	-1	-	16	6	↑	ld
Falco tinnunculus	Common Kestrel	-23	-1	↓	-27	-3	↓	sd
Galerida cristata	Crested Lark[1]	-95	-14	↓	-85	-11	↓↓	sd
Galerida theklae	Thekla Lark	*	*	*	99	7	↑	sd
Hirundo rustica	Barn Swallow	-16	-1	↓	-17	-2	↓	ld
Lanius collurio	Red-backed Shrike	-30	0	-	26	1	-	ld
Lanius senator	Woodchat Shrike	*	*	*	-41	-4	↓	ld
Limosa limosa	Black-tailed Godwit	*	*	*	-39	-3	↓	ld
Melanocorypha calandra	Calandra Lark	*	*	*	-9	-2	↓	sd
Miliaria calandra	Corn Bunting	-61	-3	↓	-10	-1	-	sd
Motacilla flava	Yellow Wagtail	-31	-1	↓	-22	-1	-	ld
Oenanthe hispanica	Black-eared Wheatear	*	*	*	-2	-1	-	ld
Passer montanus	Eurasian Tree Sparrow	-45	-2	↓	13	-1	-	sd
Perdix perdix	Grey Partridge	-79	-7	↓↓	-58	-9	↓	sd
Petronia petronia	Rock Sparrow	*	*	*	48	2	↑	sd
Saxicola rubetra	Whinchat	-55	-2	↓	-10	0	-	ld
Saxicola torquata	Common Stonechat[1]	-30	-1	?	1	2	-	sd
Serinus serinus	European Serin[1]	-41	-3	↓	-31	-2	↓	sd
Streptopelia turtur	Eurasian Turtle Dove	-62	-4	↓	-19	-1	↓	ld
Sturnus unicolor	Spotless Starling	*	*	*	55	4	↑	sd
Sturnus vulgaris	Common Starling	-49	-2	↓	-3	0	-	sd
Sylvia communis	Common Whitethroat	9	1	↑	-4	1	↑	ld
Upupa epops	Eurasian Hoopoe[1]	49	1	?	-24	-1	?	ld
Vanellus vanellus	Northern Lapwing	-51	-4	↓	-40	-3	↓	sd

Class. – Trend classification: ↑ moderate increase, - stable, ↓ moderate decline, ↓↓ steep decline, ? uncertain.
Migratory status: sd – short-distance migrant or resident, ld – long-distance migrant.
[1] long-term trend: 1982-2005, * long-term trend not available. *See page 10 for a full description of the classifications.*

Table 3. The trends of other common birds in Europe.

Species		long-term trend (%)	long-term annual change (%)	long-term class.	short-term trend (%)	short-term annual change (%)	short-term class.	migratory status
Acrocephalus arundinaceus	Great Reed-warbler[1]	62	3	?	-29	0	-	ld
Acrocephalus palustris	Marsh Warbler	0	0	-	-31	0	-	ld
Acrocephalus schoenobaenus	Sedge Warbler	-65	-2	↓	-44	-3	?	ld
Acrocephalus scirpaceus	Common Reed-warbler	-11	-1	↓	-22	-1	↓	ld
Actitis hypoleucos	Common Sandpiper	-19	-2	↓	-14	-1	↓	ld
Aegithalos caudatus	Long-tailed Tit	46	1	-	-16	0	-	sd
Apus apus	Common Swift	7	-1	↓	21	1	-	ld
Buteo buteo	Common Buzzard	80	3	↑	-9	0	-	sd
Carduelis carduelis	European Goldfinch	-9	2	↑	3	1	-	sd
Carduelis chloris	European Greenfinch	29	0	-	-11	0	-	sd
Carduelis flammea	Common Redpoll	-54	-1	?	9	-1	-	sd
Carpodacus erythrinus	Common Rosefinch	224	2	↑	-45	-4	↓	ld
Cettia cetti	Cetti's Warbler	*	*	*	541	7	↑	sd
Cisticola juncidis	Zitting Cisticola	*	*	*	-5	-1	-	sd
Columba palumbus	Common Wood-pigeon	71	2	↑	19	1	↑	sd
Corvus corax	Common Raven	118	5	↑	54	2	↑	sd
Corvus corone & cornix	Carrion Crow	21	1	↑	6	0	-	sd
Corvus monedula	Eurasian Jackdaw	14	-1	-	-10	-1	-	sd
Cuculus canorus	Common Cuckoo	-17	-1	↓	-6	-1	↓	ld
Delichon urbica	Northern House Martin	-8	-2	↓	-19	-3	↓	ld
Dendrocopos major	Great Spotted Woodpecker	43	1	↑	25	2	↑	sd
Emberiza cia	Rock Bunting	*	*	*	114	5	↑	sd
Emberiza schoeniclus	Reed Bunting	-7	0	-	21	-1	-	sd
Erithacus rubecula	European Robin	16	1	↑	11	1	↑	sd
Fringilla coelebs	Chaffinch	11	0	-	-1	0	-	sd
Fringilla montifringilla	Brambling	-70	-3	↓	-7	-2	↓	sd
Gallinago gallinago	Common Snipe	-36	-2	↓	-12	0	-	sd
Hippolais icterina	Icterine Warbler	-42	-2	↓	-21	-1	↓	ld
Hippolais polyglotta	Melodious Warbler	*	*	*	-12	-2	-	ld
Hirundo rupestris	Eurasian Crag Martin	*	*	*	118	4	?	sd
Jynx torquilla	Eurasian Wryneck	-74	-5	↓	-38	-4	↓	ld
Locustella fluviatilis	Eurasian River Warbler[1]	-62	-1	-	-37	0	-	ld

Class. – Trend classification: ↑↑ strong increase, ↑ moderate increase, - stable, ↓ moderate decline, ? uncertain.
Migratory status: sd – short-distance migrant or resident, ld – long-distance migrant.
[1] long-term trend: 1982-2005, * long-term trend not available. *See page 10 for a full description of the classifications.*

Species		long-term trend (%)	long-term annual change (%)	long-term class.	short-term trend (%)	short-term annual change (%)	short-term class.	migratory status
Locustella naevia	Common Grasshopper-warbler	-44	-1	-	-8	-2	↓	ld
Lullula arborea	Wood Lark	-18	4	?	24	1	-	sd
Luscinia luscinia	Thrush Nightingale	-29	-2	↓	-37	-2	↓	ld
Luscinia megarhynchos	Common Nightingale	-63	-4	↓	0	0	-	ld
Merops apiaster	European Bee-eater	*	*	*	30	2	?	ld
Motacilla alba	White Wagtail	-14	0	↓	-28	-1	↓	sd
Motacilla cinerea	Grey Wagtail[1]	-54	-2	↓	-39	-2	↓	sd
Muscicapa striata	Spotted Flycatcher	-59	-3	↓	-32	-2	-	ld
Oenanthe oenanthe	Northern Wheatear	-70	-5	↓	-52	-5	↓	ld
Oriolus oriolus	Eurasian Golden Oriole[1]	34	2	↑	29	1	-	ld
Parus caeruleus	Blue Tit	43	1	↑	33	1	↑	sd
Parus major	Great Tit	12	0	-	18	1	↑	sd
Passer domesticus	House Sparrow	-37	-2	↓	-2	-1	-	sd
Phoenicurus ochruros	Black Redstart[1]	24	0	-	-6	0	-	sd
Phylloscopus trochilus	Willow Warbler	-30	-2	↓	-26	-2	↓	ld
Pica pica	Black-billed Magpie	5	0	↓	-29	-3	↓	sd
Picus viridis	Eurasian Green Woodpecker	43	2	↑	45	3	↑	sd
Prunella modularis	Hedge Accentor	-33	-1	↓	-10	-1	↓	sd
Pyrrhocorax pyrrhocorax	Red-billed Chough	*	*	*	32	1	-	sd
Streptopelia decaocto	Eurasian Collared Dove	59	2	↑	104	5	↑	sd
Sylvia atricapilla	Blackcap	82	3	↑	22	2	↑	sd
Sylvia borin	Garden Warbler	-21	-1	↓	-20	-1	↓	ld
Sylvia cantillans	Subalpine Warbler	*	*	*	-2	1	?	ld
Sylvia curruca	Lesser Whitethroat	-10	0	-	12	1	-	ld
Sylvia melanocephala	Sardinian Warbler	*	*	*	-16	2	-	sd
Sylvia undata	Dartford Warbler	*	*	*	-27	-3	↓	sd
Troglodytes troglodytes	Winter Wren	45	2	↑	3	2	↑	sd
Turdus iliacus	Redwing	21	0	-	14	0	↑	sd
Turdus merula	Eurasian Blackbird	15	1	↑	16	1	↑	sd
Turdus philomelos	Song Thrush	-5	0	↓	22	1	↑	sd
Turdus pilaris	Fieldfare	7	1	↑	-37	-1	↓	sd

Class. – Trend classification: ↑ moderate increase, - stable, ↓ moderate decline, ? uncertain.
Migratory status: sd – short-distance migrant or resident, ld – long-distance migrant.
[1] long-term trend: 1982-2005, * long-term trend not available. *See page 10 for a full description of the classifications.*

Table 4. The trends of common forest birds in Europe.

Species		long-term trend (%)	long-term annual change (%)	long-term class.	short-term trend (%)	short-term annual change (%)	short-term class.	migratory status
Accipiter nisus	Eurasian Sparrowhawk	15	0	-	-13	-2	?	sd
Anthus trivialis	Tree Pipit	-49	-3	↓	-30	-2	↓	ld
Bonasa bonasia	Hazel Grouse[2]	-47	-1	-	-50	-1	-	sd
Carduelis spinus	Eurasian Siskin	-34	-1	↓	-6	0	-	sd
Certhia brachydactyla	Short-toed Tree-creeper[1]	-46	-1	-	35	3	↑	sd
Certhia familiaris	Eurasian Tree-creeper	-2	0	-	8	0	-	sd
Coccothraustes coccothraustes	Hawfinch	658	2	↑	-33	-2	↓	sd
Columba oenas	Stock Pigeon	13	1	-	10	1	-	sd
Dendrocopos minor	Lesser Spotted Woodpecker	-81	-7	↓	-56	-6	?	sd
Dryocopus martius	Black Woodpecker	77	2	↑	52	2	-	sd
Ficedula albicollis	Collared Flycatcher[1]	182	4	↑	56	0	-	ld
Ficedula hypoleuca	European Pied Flycatcher	-26	-9	↓	-24	-1	↓	ld
Garrulus glandarius	Eurasian Jay	32	0	-	51	2	↑	sd
Nucifraga caryocatactes	Spotted Nutcracker	19	-3	↓	-62	-8	↓	sd
Parus ater	Coal Tit	-17	0	-	-17	-2	↓	sd
Parus cristatus	Crested Tit	-35	-2	↓	-11	-1	-	sd
Parus montanus	Willow Tit	-58	-4	↓	-33	-2	-	sd
Parus palustris	Marsh Tit	-35	-3	↓	-18	-1	-	sd
Phoenicurus phoenicurus	Common Redstart	-33	0	-	31	1	↑	ld
Phylloscopus bonelli	Bonelli's Warbler	*	*	*	-33	-3	?	ld
Phylloscopus collybita	Common Chiffchaff	56	3	↑	-22	0	-	ld
Phylloscopus sibilatrix	Wood Warbler	-44	-3	↓	-52	-6	↓	ld
Picus canus	Grey-faced Woodpecker[1]	63	1	?	-11	-2	-	sd
Pyrrhula pyrrhula	Eurasian Bullfinch	-48	-1	↓	-16	-2	↓	sd
Regulus ignicapilla	Firecrest[1]	-19	1	-	-33	1	-	sd
Regulus regulus	Goldcrest	-19	-1	↓	-38	-2	↓	sd
Sitta europaea	Wood Nuthatch	61	1	↑	-14	-1	-	sd
Turdus viscivorus	Mistle Thrush	-20	-1	↓	-3	0	-	sd

Class. – Trend classification: ↑ moderate increase, - stable, ↓ moderate decline, ? uncertain. **Migratory status**: sd – short-distance migrant or resident, ld – long-distance migrant. [1] long-term trend: 1982-2005, [2] long-term trend: 1983-2005, * long-term trend not available. *See page 10 for a full description of the classifications.*

There are some fluctuations in Coal Tit trends, but long-term trend is classified as stable.
Photo by T. Bělka (birdphoto.eu).

Trend classification

The multiplicative overall slope estimate in TRIM is converted into one of the following categories. The category depends on the overall slope as well as its 95% confidence interval (= slope +/- 1.96 times the standard error of the slope).

↑↑ Strong increase - increase significantly more than 5% per year (5% would mean a doubling in abundance within 15 years). Criterion: lower limit of confidence interval > 1.05.

↑ Moderate increase - significant increase, but not significantly more than 5% per year. Criterion: 1.00 < lower limit of confidence interval < 1.05.

\- Stable - no significant increase or decline, and it is certain that trends are less than 5% per year. Criterion: confidence interval encloses 1.00 but lower limit > 0.95 and upper limit < 1.05.

? Uncertain - no significant increase or decline, but not certain if trends are less than 5% per year. Criterion: confidence interval encloses 1.00 but lower limit < 0.95 or upper limit > 1.05.

↓ Moderate decline - significant decline, but not significantly more than 5% per year. Criterion: 0.95 < upper limit of confidence interval < 1.00.

↓↓ Steep decline - decline significantly more than 5% per year (5% would mean a halving in abundance within 15 years). Criterion: upper limit of confidence interval < 0.95.

Table 5. The ten species that have shown the greatest increases in Europe between 1980 and 2005.

Species		habitat	annual change (%)
Corvus corax	Common Raven	other	+5
Ficedula albicollis	Collared Flycatcher	forest	+4
Phylloscopus collybita	Common Chiffchaff	forest	+3
Buteo buteo	Common Buzzard	other	+3
Sylvia atricapilla	Blackcap	other	+3
Dryocopus martius	Black Woodpecker	forest	+2
Picus viridis	Eurasian Green Woodpecker	other	+2
Coccothraustes coccothraustes	Hawfinch	forest	+2
Streptopelia decaocto	Eurasian Collared Dove	other	+2
Columba palumbus	Common Wood-pigeon	other	+2

Annual change is an average percentage change in numbers per year. Those species with European trend data since 1980, 1982 or 1983 were only used and species with their European trend classified as uncertain (see the description of the Trend classifications on Page 15 for details) were excluded.

Unsurprisingly, some of the ten species that have shown the greatest increases in Europe are habitat generalists (e.g. Blackcap *Sylvia atricapilla*). Another species in this list, Eurasian Collared-dove *Streptopelia decaocto*, has colonised Europe during the 20th century (Hagemeijer & Blair 1997). The Eurasian Collared Dove appears to be to continuing increase in southern Europe with numbers stabilising in western Europe. The positive trend for Common Raven *Corvus corax* suggests that the species is now recovering in Europe following a previous contraction of its range (Hagemeijer & Blair 1997). The increasing trend for Common Buzzard *Buteo buteo* now appears to be stabilising after recovery from declines caused by persecution and pesticides.

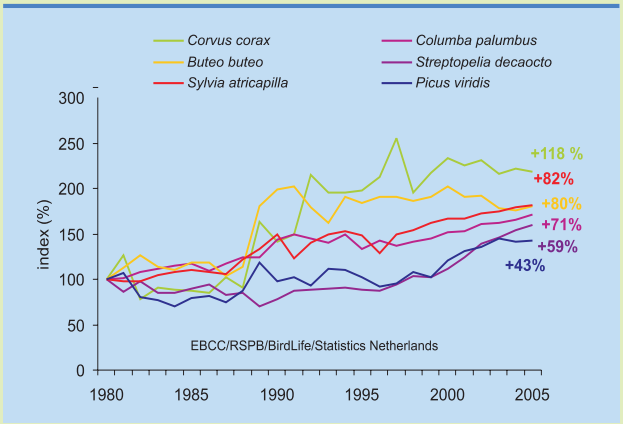
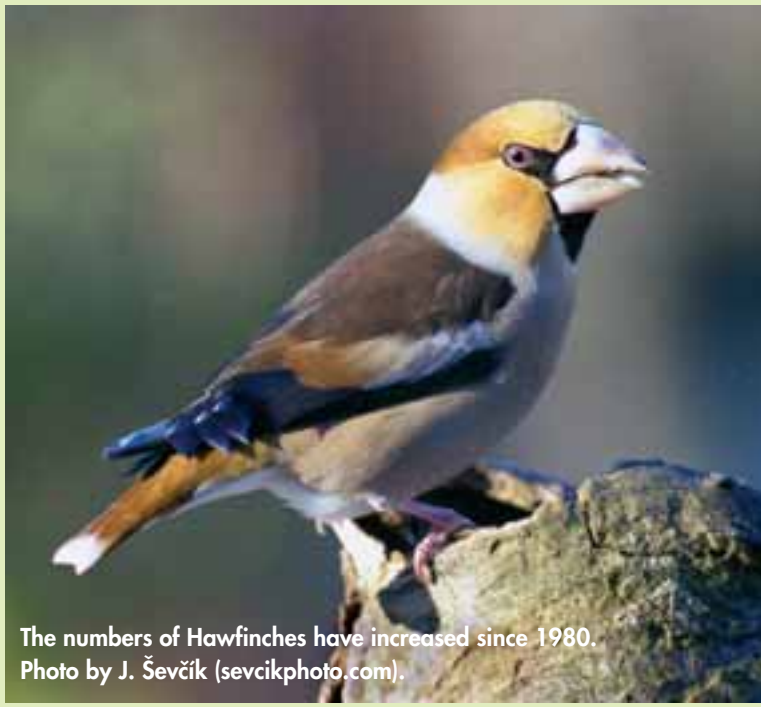


Figure 10 - Trends of the habitat generalists among the ten species that have shown the greatest increases in Europe.

Interestingly, four species classified as characteristic for forests are found among the ten species with the greatest increases in Europe.



The numbers of Hawfinches have increased since 1980. Photo by J. Ševčík (sevcikphoto.com).

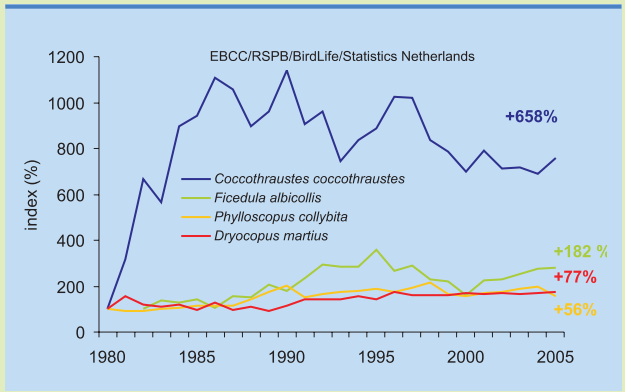


Figure 11 - Trends of the four forest specialists among the ten species that have shown the greatest increases in Europe.

Chiffchaffs are increasing across most of Europe. Photo by D. Jirovský (wildbirdphoto.eu).

Collared Flycatcher *Ficedula albicollis*, forest bird species that is increasing greatly in Europe, has the core of its population in central and eastern Europe, where there are large extents of temperate broad-leaved forests in good condition. The positive trends of species characteristic of temperate broad-leaved forests may help to explain the differences between trends in central and eastern Europe compared to northern and western Europe.

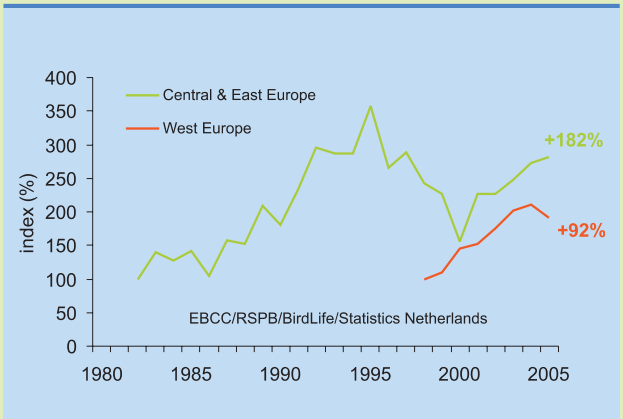


Figure 12 - Regional trends of the Collared Flycatcher *Ficedula albicollis* in two European regions.

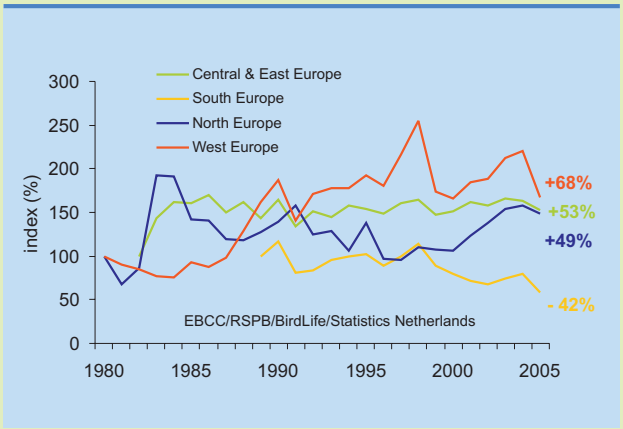


Figure 13 - Regional trends of the Common Chiffchaff *Phylloscopus collybita* in Europe.

Chiffchaff *Phylloscopus collybita* is reported as Secure in Birds in Europe 2, but noted as declining in north Fennoscandia (BirdLife International 2004). This is in contrast to overall trend in Europe and to the regional trends – the species is increasing in three regions, including northern Europe, although it is declining in southern Europe. Further investigation is needed to find whether this difference is caused by a lack of monitoring data in north European countries or less accurate trend information as presented in Birds in Europe 2.

Eurasian Collared-dove is increasing in all regions of Europe. Photo by I. Mikšík (natureblink.com).

The latest PECBMS trends include several species not included previously. These species data exist at a national level in good quality, but have not been included before because of capacity reasons. Due to increased capacity it has been possible to produce indices on more species. Meadow Pipit *Anthus pratensis* is one of the species for which a European trend has been produced for the first time. This species is classified as Secure in Birds in Europe 2 (BirdLife International 2004), mainly because of its population in European Russia. The PECBMS does not yet include data from Russia, nevertheless a declining trend indicates that Meadow Pipit may be a cause for concern, at least in the western part of its range. Another species new to the PECBMS indicators is Crested Tit *Parus cristatus*, a species characteristic of coniferous forests. Despite annual fluctuations, Crested Tit numbers are showing a decline in Europe.
The PECBMS is working on the development of indicators of other habitat types. One of the habitats of concern is the urban habitat. With increasing urban populations across Europe this habitat is becoming increasingly important. Some bird species have colonised urban areas, other species avoid it completely and other species prefer this environment. Several species from the current PECBMS dataset can be intuitively classified as urban: Eurasian Collared Dove, Common Swift *Apus apus*, Northern House-martin *Delichon urbica*, Black Redstart *Phoenicurus ochruros* and House Sparrow *Passer domesticus*. The trends of the two aerial feeders, Common Swift and Northern House Martin, show relatively large annual fluctuations, although the long-term trends of both species show a moderate decline. Common Swift appears to be declining more in north and west Europe. Due to the behaviour of both species, however, the issue is whether trends obtained through generic monitoring schemes can provide the best picture of population changes, and interpretation of the current results should be treated with caution. Eurasian Collared Dove is an increasing species, but since it is a species that colonised Europe in the 20th century, it is difficult to attribute its trend to the quality of its habitat.

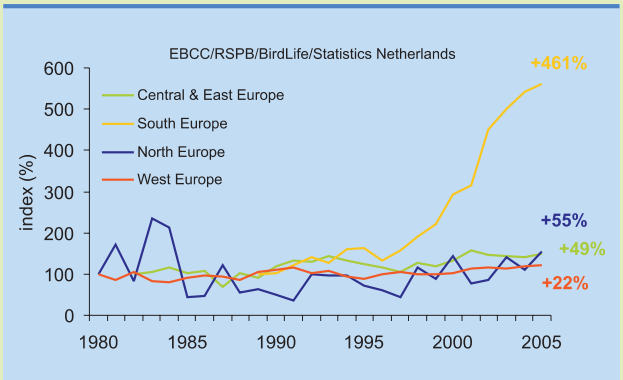
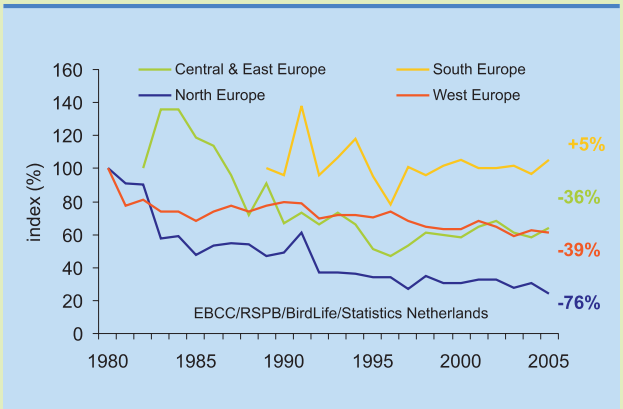


Figure 14 - Regional trends of the Eurasian Collared Dove *Streptopelia decaocto* in Europe.

Northern House Martin is one of the species that could be included in an urban bird indicator in the future. Photo by D. Jirovský (wildbirdphoto.eu).

House Sparrow, famous for its widespread decline seems to be showing signs of a recovery in central and east Europe and to be stable in south Europe. Photo by D. Green (rspb-images.com).



Further effort will be needed to develop a common bird indicator of urban habitats. As there are few species that could contribute to the urban bird indicator as genuine urban specialists, it might make sense to include data from other species, but from urban areas only.

Figure 15 - Regional trends of the House Sparrow *Passer domesticus* in Europe. The species has declined continuously in the majority of the continent, but is relatively stable in south Europe.

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Wood-pigeons are still increasing in Europe. Photo by D. Jirovský (wildbirdphoto.eu).

Species names index (refers to the tables 2-4 on pages 11-14)

The wild bird indicator also includes wetland species, such as Common Snipe.
Photo by D. Jirovský (wildbirdphoto.eu).

Pan-European Common Bird Monitoring Scheme (PECBMS) is a joint initiative of the European Bird Census Council (EBCC) and BirdLife International. The main aim of the scheme is to use common birds as indicators of the general state of nature, using scientific data on changes in breeding populations across Europe. The PECBM scheme uses data from large-scale monitoring schemes based on volunteer fieldwork with a standardised methodology and formal design. Through the generation of national and supra-national indices for individual species, it produces European composite indices for groups of species (indicators). The PECBM scheme supports and provides assistance to national or regional common bird monitoring schemes, facilitates in the sharing of knowledge between monitoring schemes and strives to establish new monitoring schemes in countries and regions where such schemes are lacking.
Contact: Petr Voříšek, project coordinator,
Czech Society for Ornithology,
Na Bělidle 252/34, CZ-150 00, Praha 5 -Smíchov,
Czech Republic.
E-mail: EuroMonitoring@birdlife.cz.

The European Bird Census Council (EBCC)

brings together ornithologists from all European countries representing national bodies responsible for monitoring bird populations, distribution and demography, to encourage bird-monitoring work aimed at better conservation and management of bird populations and at providing indicators of the changing ability of European landscapes to support wildlife generally.
www.ebcc.info.

BirdLife International

is a worldwide partnership of conservation organisations, represented in more than 100 countries (including more than 40 in Europe) and with more than 2.5 million members worldwide. BirdLife works for the diversity of all life and the sustainable use of natural resources through the conservation of birds and their habitats.
www.birdlife.org.

Statistics Netherlands

is the official Bureau of Statistics of the Netherlands and is responsible for compiling statistics on a wide range of developments in society. SN cooperates closely with NGO's to produce wildlife statistics. These statistics currently concern 14 monitoring programmes, ranging from birds to butterflies and plants.
www.cbs.nl

The Royal Society for Protection of Birds (RSPB)

is the UK charity working to secure a healthy environment for birds and wildlife, helping to create a better world for us all. The RSPB is the BirdLife Partner in the UK.
www.rspb.org.uk.

Czech Society for Ornithology (CSO)

is a non-governmental organisation which aims to perform, support and promote research and conservation of wild living birds and their habitats. CSO is the BirdLife Partner in the Czech Republic.
www.birdlife.cz.

PECBMS national data providers

Austria

Belgium

Czech Republic

Denmark

Denmark

Denmark

Estonia

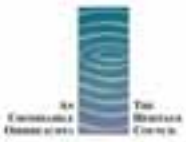
Finland

France

Germany

Hungary

Ireland



Ireland

Ireland

Italy

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Latvia

Latvia

Netherland

Norway

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Norway

Poland

Poland

Portugal

Spain

Spain

Sweden

Sweden

Switzerland

United Kingdom

United Kingdom

United Kingdom