The State of Birds in Switzerland
Report 2022

vogelwarte.ch

Headlines

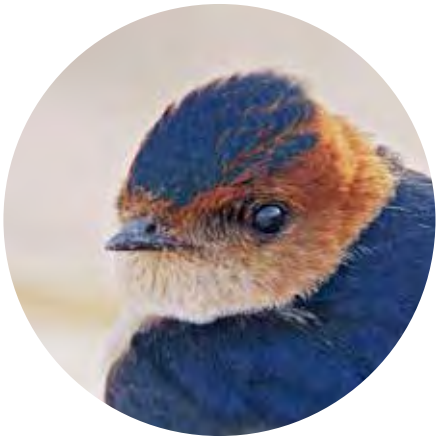
While biodiversity measures have led to increases in some farmland species in 2021, others continue to suffer losses due to intensive agriculture. ➲ page 6

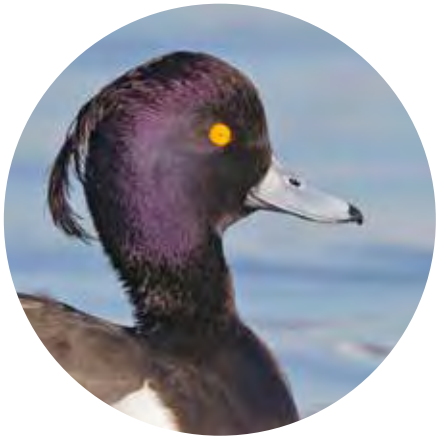
Birds that favour open habitats, wetlands, hedges or low-intensity farmland occur in above-average numbers on military training sites. ➲ page 8

The southern end of Lake Neuchâtel accommodates many species in nationally important numbers. The Association de la Grande Cariçaie manages the area and is in charge of population monitoring. ➲ page 12

«Monitoring common breeding birds» (MHB) brings to light the large-scale decline of the European Greenfinch. The nosedive can be traced to a parasite infecting the birds' digestive tract. ➲ page 14

The Red-rumped Swallow extends its range in Europe to the north. It has been observed in Switzerland almost every year since 2000. Spring 2021 saw the greatest influx so far. ➲ page 20





In January 2022, 430 000 waterbirds were recorded in Switzerland, the lowest count since about 1970. The wintering numbers of common species such as Tufted Duck, Common Pochard and Mallard are in decline. ➲ page 26

Compared to other countries in central Europe, the positive trends of woodland birds in Switzerland since 1990 stand out. However, many farmland species in our country suffered their greatest losses before 1990. ➲ page 32

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You can find further information online, including population trends for breeding birds and additional analyses: www.vogelwarte.ch/state

Long-term monitoring is crucial

When I was young and began to develop an interest in ornithology, Greenfinches were everywhere, and Skylarks, Tree Pipits and Wood Warblers were fairly widespread, while seeing a Middle Spotted Woodpecker was a rare treat. Anyone who starts to take an interest in birdlife today will experience the current situation of these species quite differently. Older and younger birdwatchers have different baselines with regard to how widespread or how common a species is, depending on when they began to pay attention to birdlife. These shifting baselines mean that we perceive changes over time differently and give those changes a different meaning depending on our experience.

The Corn Bunting is a common bird in the Mediterranean region. An expansion wave was registered regionally in Switzerland until the 1970s. The population collapsed dramatically from the 1980s, and the species is now considered critically endangered.

Long-term data sets are necessary to avoid the trap of these subjective appraisals. The monitoring projects that the Swiss Ornithological Institute has been conducting since the 1960s with the help of more than 2000 volunteers deliver exactly that. Thanks to these ongoing monitoring schemes that are geared towards continuity, we know that the Greenfinch population below 1000 m asl has almost halved in the last ten years, while the Middle Spotted Woodpecker is currently seeing a rise unprecedented since systematic recording began.

This is the kind of information we expect monitoring schemes to deliver. But like other long-term studies, they sometimes provide insights that go beyond the programme's original focus. One such example are the changes over time in local patterns of birdsong. Long-term monitoring projects tell us what species occur or once occurred in certain areas, allowing us to (re-)construct local soundscapes. The results show that spring birdsong in Europe and North America since 1996 has become quieter and less varied.

Linking data from bird monitoring programmes with data from other long-term environmental monitoring schemes can further our understanding of population changes. These long-term data series and the huge advances in statistical analysis, to which the monitoring data of the Swiss Ornithological Institute have contributed, offer great potential that can now be exploited, for example in the context of climatic changes.

The value of the monitoring programmes relies greatly on the continuity of data collection. At the same time, ongoing adjustments need to be made as species that are subject to special monitoring become more widespread in Switzerland, such as White-backed Woodpecker or non-native species like Egyptian Goose. Encouragingly, the number of records made via the online platform ornitho.ch and the NaturaList app continue to grow, necessitating structural adaptation of the databases and raising new challenges in terms of data storage and analysis.

The shifting baseline syndrome will not disappear – but thanks to monitoring programmes geared to the long term, we and future generations will be better equipped to deal with it.

PD Dr Gilberto Pasinelli
Scientific Director

The population of Black Woodpeckers in Switzerland has doubled since 2000. The species is now widespread between 400 and 1700 m asl. That was not always the case: in the 1950s, gaps were apparent on the Central Plateau even in well-monitored areas, and the Mendrisiotto TI and parts of the Lake Geneva basin have been newly colonised since 1993–1996.

Flooding in the Fanel and Chablais de Cudrefin nature reserves (Lake Neuchâtel) in July 2021. Breeding birds whose offspring had already fledged were not affected.

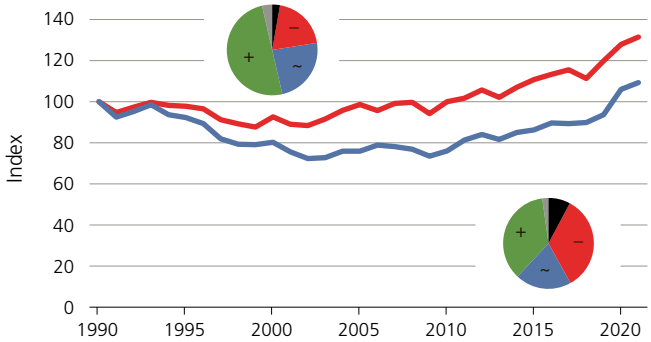
How are breeding birds doing?

Overall, the population estimates of breeding birds in 2021 were encouraging. The favourable breeding conditions in the year before certainly contributed to this positive outcome; spring and summer of 2020 were very warm and dry. The following winter 2020/21 was largely mild in lowland regions, with only January seeing a longer period of snow cover. The moderate winter was followed by a cold, wet spring in 2021, which may have led to reduced song activity in some species. Still, counts from MHB territory mapping surveys were relatively high for many songbirds, and may have been higher still had the weather been milder.

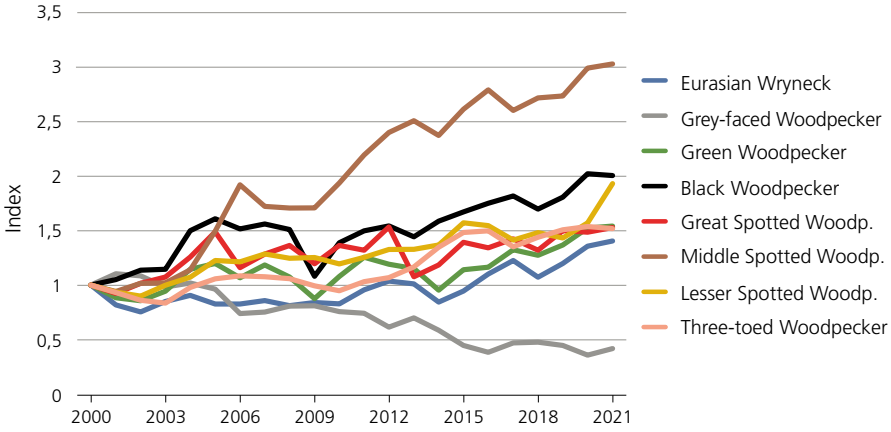
Effects on breeding success

It was a difficult breeding season for many bird species. This was particularly apparent in the case of swifts. Common Swifts, for example, had to postpone egg-laying by about three weeks to the end of May. They were lucky in that a period of reasonably good conditions for chick rearing followed. In the end, breeding success was only slightly below average, though there were marked differences from one colony to the next. Alpine Swifts were less fortunate. They require almost two months to raise their young. The wet and cold weather in late July/early August caused the death of around half the nestlings in the colonies of Burgdorf, Biel and Solothurn, for example.

Rainfall in June and July was twice the usual amount in some parts, causing water levels to rise sharply during the breeding season, which resulted in above-average brood loss. Counts of Red-crested Pochard and Tufted Duck families, for example, were very low; the same goes for Great Crested Grebes. Similarly, many typical inhabitants of rivers, such as the Common Kingfisher, or reedbeds, like the Reed Warbler and Reed Bunting, experienced massive brood losses. In June, hailstorms swept large parts of the country. Hailstones up to 7 cm in



The population index of priority species for recovery programmes (blue) has increased significantly in the past years. Rising and declining trends are about equal, but there are also several species that have disappeared completely. The overall trend of all breeding bird species (red) is positive. The coloured segments of the pie chart show the proportion of species with a positive (green), negative (red) and neutral or fluctuating trend (blue). The grey and black segments, respectively, represent species that have newly occurred or disappeared as breeders since 1990.



All woodpecker species apart from the Grey-faced Woodpecker have increased since 2000. The Grey-faced Woodpecker is the focus of a current research project at the Swiss Ornithological Institute. Data for the White-backed Woodpecker are insufficient to calculate a trend.

Like some other woodpecker species, Lesser Spotted Woodpeckers rely on rotting or dead wood to excavate their nesting holes.

diameter are sure to have affected many species, but the losses are impossible to quantify. Among the victims were White Storks, Great Cormorants and Yellow-legged Gulls.

Bright spells …

Several species reached new highs in 2021, a sign that conservation efforts are gaining traction. The positive trends over the past years of Common Kestrel, Eurasian Wryneck or Common Hoopoe can be attributed in part to the success of species recovery programmes. Some farmland birds also showed a strong increase, e.g. Common Stonechat, Greater Whitethroat or Woodlark – possibly as a result of the dry and warm summers of the past few years.

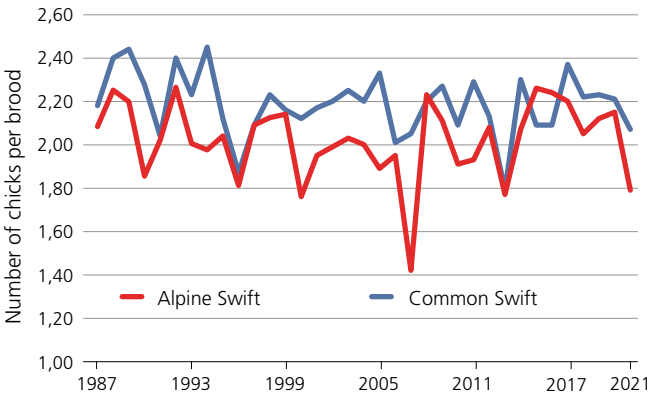
Among the woodland species, several have continued their upward trends, such as European Robin and Eurasian Blue Tit. Similarly, trends are currently positive for all woodpecker species apart from Grey-faced Woodpecker. Strong populations of «nature's carpenters» will benefit other cavity nesters. The positive trend in White Stork numbers continues unabated, while there are signs of a trend reversal for Yellow-legged Gull.

… or clouds on the horizon?

Despite encouraging trends, we must not forget that many species could have extremely sensitive reactions to possible future changes. The positive trends of many woodland species, for example, is related to the fact that forests have been managed at relatively low intensity in the past few years. Rising timber prices, the increasing demand for wood fuel and the simultaneous decline in productivity of many forests due to climate change could bring an abrupt end to the encouraging signs we currently see in many populations. This applies especially to the easily accessible woods at low and mid-elevation.

Further information
www.vogelwarte.ch/state/breeding

These young White Storks were lucky despite being injured in a hailstorm in the summer of 2021. They were looked after at the Swiss Ornithological Institute's bird care centre before being released back into the wild.



In bad weather years like 2021, Alpine Swifts (red) raise significantly fewer young than Common Swifts (blue). Breeding success was only slightly below average in Common Swifts. Based on 12 610 and 26 422 broods, respectively, from 1987 to 2021.

The vast tank training grounds that are part of the military training site in Thun (BE) include pools, ponds, shrubs and wasteland. These form attractive habitat for breeding and migratory birds, but also for amphibians, reptiles, insects and a rich flora.

Ten years of monitoring breeding birds on military sites

armasuisse Real Estate is a major landowner in Switzerland. Military sites are far from being idyllic habitat, and there are conflicts of interest here, too. But armasuisse oversees an above-average share of valuable habitat on its property and actively engages in environmental management. In terms of surface area, the amount of habitat worthy of protection on military training grounds is at least three times the Swiss average.

Since 2012, the biodiversity monitoring programme of the Federal Department for Defence, Civil Protection and Sport (DDPS) has documented the presence of breeding birds and vascular plants on the 26 largest military training grounds, shooting ranges and military airfields in our country. Within this programme, the Swiss Ornithological Institute organises the breeding bird counts. They take place every two years in 34 kilometre squares.

Diverse habitats

The armasuisse sites are spread across Switzerland. For that reason, they include diverse habitats ranging from bare airfields on the Central Plateau to richly structured areas in the Jura and high-lying shooting ranges in Alpine valleys. As varied as the sites themselves are their vegetation and breeding bird communities. In the monitoring period 2020/21 alone, we registered 122 breeding bird species in the 34 kilometre squares. To assess species composition and trends, the monitoring project, which is coordinated by ecological consultants Hintermann & Weber AG, draws on reference data collected by the Biodiversity Monitoring Switzerland (BDM) scheme in «normal» landscapes.

Not more species, but …

The results show that the average number of breeding bird species on military training sites hardly differs from «normal» landscapes. While there are a few «top-performing» squares with 50 breeding species and more, in up to 460 territories, other squares are less spectacular and pull the average back down. But the difference is a qualitative one. Military training sites attract more breeding species that prefer open, arid habitats or wetlands, that favour pioneer habitats or colonise hedges and bushes in low-intensity farmland. These habitats are in short supply in the normal landscape, which is why many of their inhabitants are red-listed. Performance reviews confirm that the military sites contain a higher number of species on the Red List and the «Environmental Objectives in Agriculture» list than normal landscapes. And that is not all: at the sites where these species occur, the number of territories is often much higher. Surveys in 2020/21 in all 34 kilometre squares revealed a remarkable 10,8 % of territories of species considered

Inhabitants of open, low-intensity grassland – like the Woodlark – are particularly drawn to military training grounds. Species like the Common Nightingale that favour hedges and thickets also occur in above-average abundance.

Endangered (7 territories), Vulnerable (204), or Near Threatened (711). The sample taken in «normal» landscapes only had a share of 7,9 %.

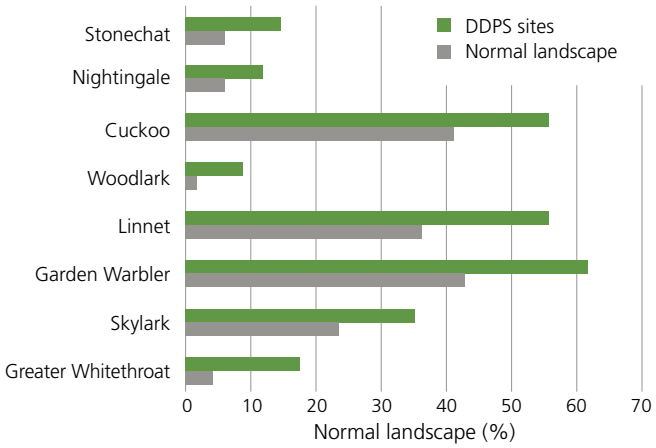
Among the species that benefit most from the DDPS sites are birds of open land, such as Eurasian Skylark, Woodlark, Whinchat, Common Stonechat, but also Common Cuckoo and inhabitants of shrubs and ruderal habitats, such as Greater and Lesser Whitethroat, Garden, Marsh and Willow Warbler, Red-backed Shrike and Yellowhammer.

Important: limited use and targeted care

The differences are not mere coincidence: in all 25 DDPS sites surveyed in the period 2015–2020 combined, the proportion of areas with vegetation worthy of protection is much greater than in the rest of Switzerland (32,6 % vs 8,9 %). The share of semi-dry grassland in particular, at 9,6 %, is far above the Swiss average of 2,4 %. Figures are similar for fens, meadows of marsh marigold, and slopes dominated by Carex ferruginea. Still, at 32,6 %, the most common type of grassland habitat on DDPS sites, like in the rest of Switzerland, is nutrient-rich grassland.

Since the adoption of the Rothenthurm initiative and the passing of the Swiss Landscape Concept, the military's conservation efforts have resulted in respectful stewardship of our natural heritage. Compared to the national average, the military training grounds are doing well in terms of meeting the demands of the federal Biodiversity Action Plan. It is a big challenge for armasuisse to maintain this high standard while having to concentrate training activities in fewer areas. The new environmental guideline proposes action plans to help the DDPS meet these challenges in the future.

Breeding bird and vascular plant surveys have been conducted at 26 DDPS sites since 2012. The illustration shows the 34 kilometre squares in which breeding bird territories are mapped (red). The blue squares from the MHB and BDM network are used for comparison and consist of areas with similar habitats and elevation.



Share of kilometre squares where selected species occur. Comparison between DDPS sites (n = 34) and MHB/BDM squares in normal landscape (n = 165), 2016–2020.

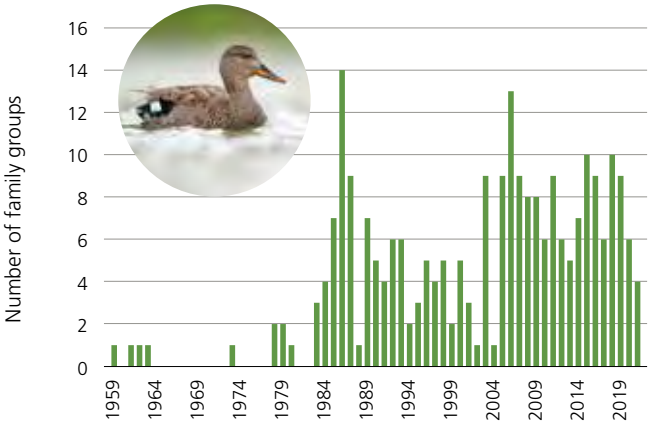
The number of Red-spotted Bluethroat territories found per year has risen to about eight since breeding was first recorded in 1980. The gains are at least partially related to increased observer effort.

On the lookout for rare breeding birds

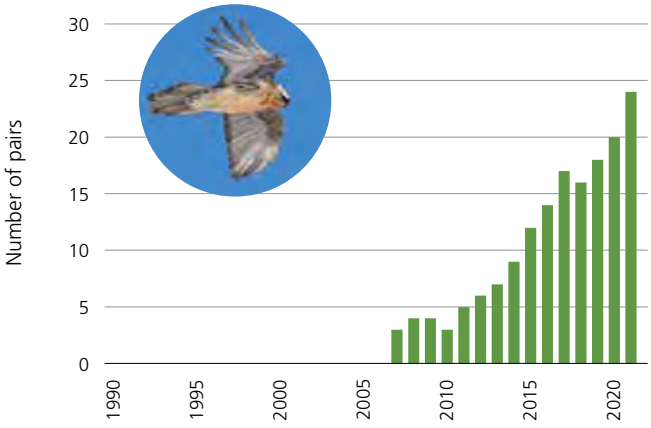
For many species, breeding populations and trends are well documented by the schemes «Monitoring common breeding birds» (MHB) or «Monitoring breeding birds in wetlands» (MF). But for about half of the approximately 210 breeding bird species, in particular colonial nesting birds, rare breeders and escaped or introduced species, these two monitoring programmes do not provide enough data to calculate reliable trends.

For the birds that are part of the programme «Monitoring particular species» (MAA), several data sources are combined every year to estimate the breeding population in a given area. For many species, adding up the estimates gives us their countrywide population size. Depending on the species' behaviour, we either count territories, pairs making a breeding attempt, or records of confirmed breeding.

Working together with local organisations and ornithologists is central when undertaking breeding population surveys, especially in wetlands like the Grande Cariçaie. In the case of colonial species, population surveys



A few Gadwall families have been sighted every year since 1983. The positive long-term trend in the small breeding population goes along with a marked increase in wintering Gadwall since 1967 and especially after 1990.



The reintroduction of the Bearded Vulture in Switzerland is a success story and illustrates that patience pays off: the first birds were released into the wild in Switzerland back in 1991.

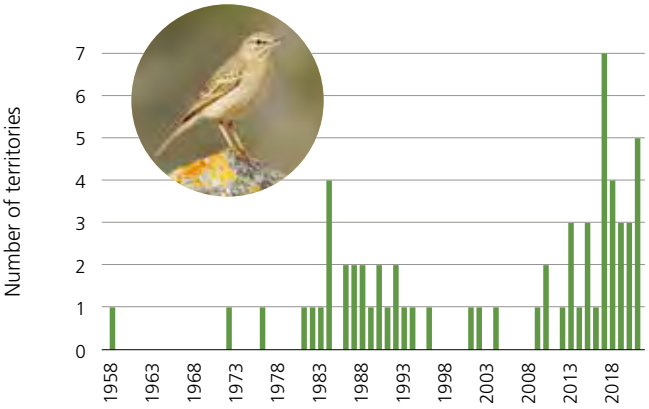
are only possible with the help of local volunteers who monitor the colonies. The observations compiled on ornitho.ch also deliver important information, signalling, for example, new colonies or rare breeding birds beyond wetlands.

More reports made directly in the field

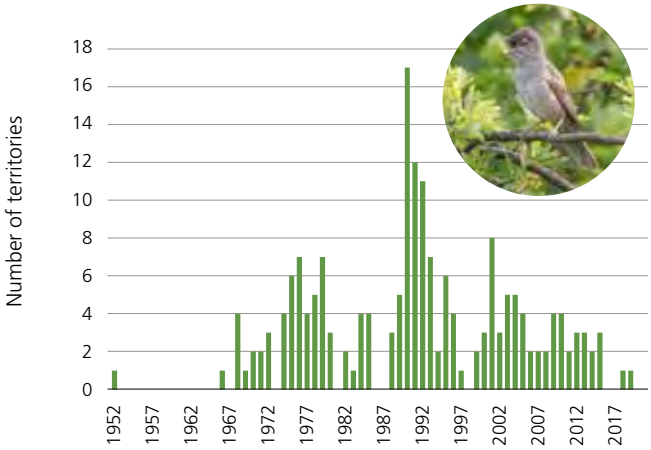
Data collection methods have advanced in leaps and bounds in the past years: for certain species surveyed in special monitoring projects, the NaturaList app allows observers to record their data digitally in the field. This applies to projects monitoring Rook, Eurasian Jackdaw, Collared Sand Martin and Eurasian Woodcock. Recording of Rock Ptarmigan and Black Grouse counts via ornitho.ch has been available for some time now. And the option to record via NaturaList and ornitho.ch will be extended to several more species in the coming years.

The database storing the population counts has been modernised in the past three years as well. A new database system facilitates spatial analyses, both when analysing observation data and when making database queries.

Further information
www.vogelwarte.ch/state/breeding



Observations of Tawny Pipit in Switzerland were sporadic following the first breeding record in 1958. From the 1980s, territories were recorded more regularly, 3–4 on average in recent years.



Breeding of Barred Warbler in Switzerland was first recorded in 1952. After peaking in the early 1990s, the number of territories has since steeply declined. The downturn is consistent with trends in Europe as a whole, where populations have also dwindled since the 1990s.

Since the first breeding record in 2003, the non-native Egyptian Goose has spread rapidly. More than 25 annual broods have been recorded regularly in recent years.

Grande Cariçaie – Switzerland's largest wetland

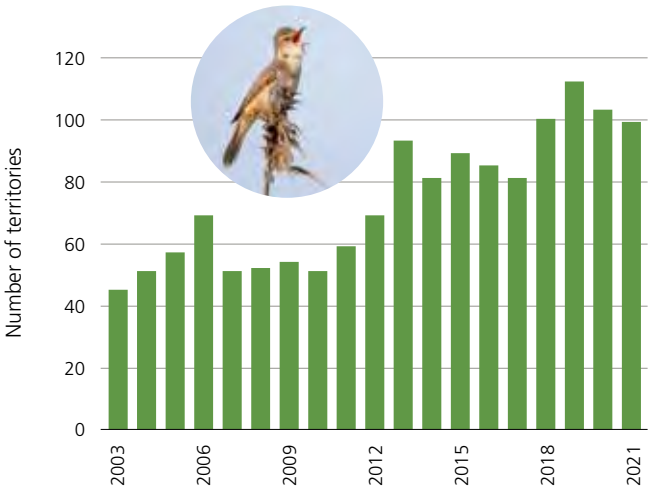
The Grande Cariçaie reserve is a diverse patchwork of habitats including riparian woodland, wet meadows, ponds and reedbeds.

At least 90 % of wetlands in Switzerland have been destroyed since 1850. The remaining areas therefore play a vital role in the conservation of marsh birds, most notably the Grande Cariçaie at the southeastern end of Lake Neuchâtel. It is the largest lakeside wetland in Switzerland.

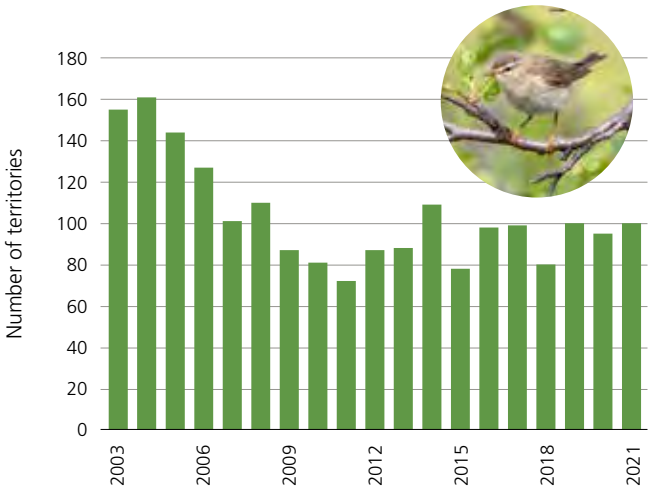
A young and fragile gem

The Grande Cariçaie is quite recent: it was created during the first Jura river regulation project in the 1870s. This large-scale project made it possible to «rehabilitate» the areas prone to flooding around Lakes Biel, Neuchâtel and Murten (the so-called Dreiseenland) and protect the population from the Aare River's high waters. The intervention caused the water level of Lake Neuchâtel to drop by almost three metres, laying bare a strip of sand more than a kilometre wide. The new habitat was gradually colonised by wetland flora and fauna. Thus, the Grande Cariçaie is an involuntary compensation for the vast moors that once covered the Dreiseenland but have long gone, though it is much smaller in size.

With the second Jura river regulation of the 1960s and 70s, water level fluctuations significantly lessened, resulting in less frequent flooding of the lakeshore wetlands. The effect on the Grande Cariçaie, along with erosion by waves and currents, was the continual loss of wetland area to lake and woodland. From 1982, an extensive array of maintenance activities became necessary to preserve the marshes, which accommodate the largest number of priority species. Over time, other tasks followed, including legal protection of the area, building visitor infrastructure, and monitoring the populations of priority species. Today, the Association de la



A third of the Swiss population of Great Reed-warblers is found at the southern shores of Lake Neuchâtel. The population trend there and in Switzerland overall is rising.



Territory numbers of Willow Warblers at the southern end of Lake Neuchâtel appear to be stabilising following a decline in the early 2000s.

Grande Cariçaie is in charge of all activities in the reserve.

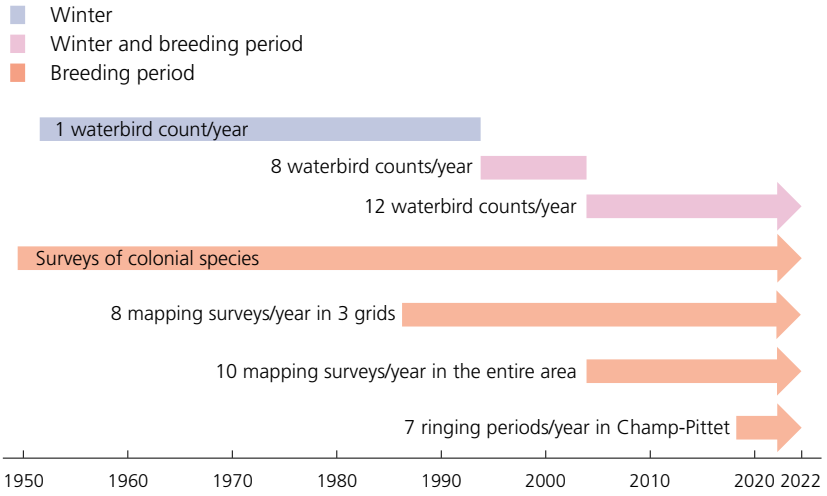
Immense diversity

The unique biological diversity of the Grande Cariçaie encompasses no less than a quarter of the flora and fauna native to Switzerland. Sixteen of twenty native amphibian species have been observed here, as well as 340 species of birds! But most notably of all, the area holds an important share of the Swiss breeding population of certain species: more than a third in the case of Great Crested Grebe, Savi's Warbler, Bearded Reedling and several gull species. Of the birds on the national priority list, 13 occur in the Grande Cariçaie, in substantial numbers. Thanks to successful habitat protection, their populations have on average remained stable over the past decades.

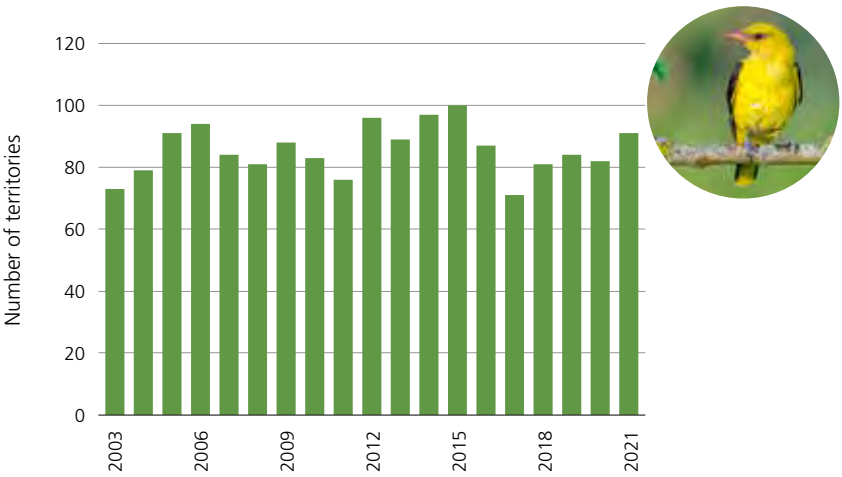
Well-monitored bird communities

Such a vital area requires careful monitoring. Since 1982, this has been the responsibility of the Association de la Grande Cariçaie, which employs more than ten members for monitoring tasks. Keeping track of bird communities is complex, and some monitoring programmes have been running for more than 70 years. Among them are breeding colony surveys of ducks, gulls and terns, conducted by volunteer members of Nos Oiseaux or Ala, as well as winter waterbird counts. The latter project has revealed some exciting developments, relating, for example, to hunting bans, the arrival of the zebra mussel, or improvements in water quality.

Since the 1980s, the more abundant wetland species have been mapped on grids in three sectors of the Grande Cariçaie, in order to track the effects of maintenance activities and improve the management of the area. One of the things we have learnt, for example, is that the greatest density of birds is reached 4–6 years after reed cutting. Over time, further monitoring projects have been added.



History of systematic bird monitoring in the Grande Cariçaie.



The population size of Eurasian Golden Orioles at the southern end of Lake Neuchâtel is remarkably stable.

Further information
www.vogelwarte.ch/state/breeding

Current trends of common breeding birds: Greenfinch gives cause for concern

Until ten years ago, the Greenfinch was a common bird. Since then, numbers have drastically declined.

Until a few years ago, the European Greenfinch was a common breeding bird across the Central Plateau. It was seen visiting feeding stations and was omnipresent in gardens, parks, orchards, vineyards and forest edges during the breeding season. After 2012, the population diminished by roughly 40 %, a collapse it has not recovered from so far. This unexpected decline meant that the species had to be reclassified as Near Threatened. The population trend is well documented thanks to the common breeding bird monitoring scheme MHB.

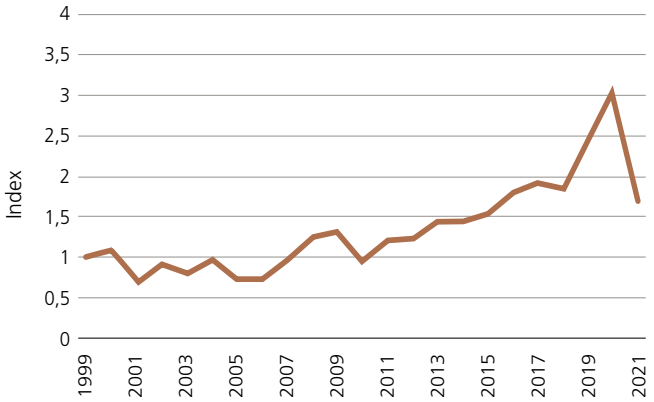
The extensive decline occurred in lowland areas both north and south of the Alps, thus affecting the species' main distribution range in Switzerland. Below 1000 m asl, the population has almost halved over the last ten years. The situation looks somewhat better above 1000 m, where the species is much scarcer, but where numbers have remained more or less stable.

Parasite poses deadly threat

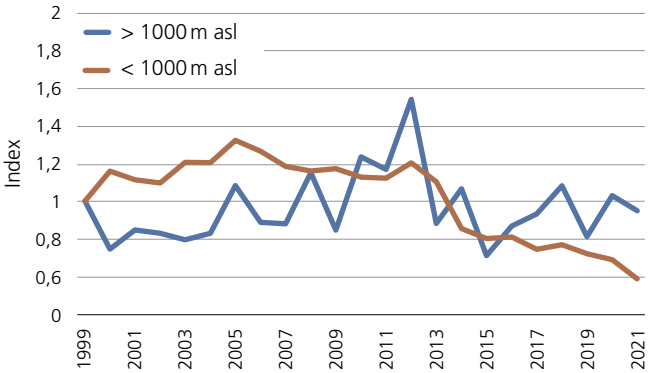
Trichomonas gallinae has been identified as the cause of the collapse. The single-celled organism infects the birds' digestive organs. Mass deaths of Greenfinches and Chaffinches were first reported in the UK in 2005. The phenomenon soon spread to large parts of Europe. While other finches barely showed signs of decline, Greenfinch populations in many countries crashed. In Finland and the UK, they dropped by up to two thirds; only in the Netherlands did numbers, surprisingly, remain high. The reasons for these variations and the higher susceptibility of Greenfinches are still unclear. The trends of the past years give no hope for a recovery anytime soon.

Setback for Crag Martins

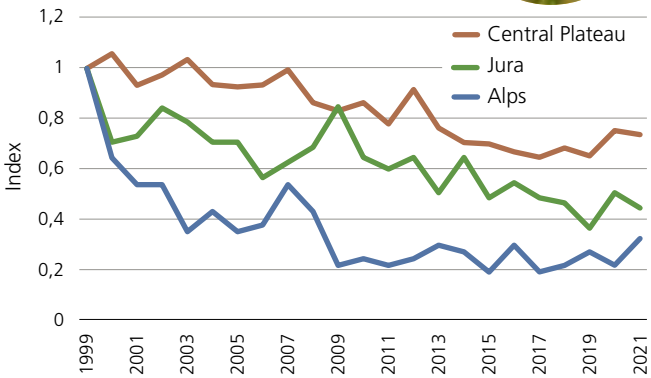
The 2013–2016 breeding bird atlas documented the expansion of Eurasian Crag Martins over time. The species has come to thrive in proximity to humans in many Alpine valleys, and partly at the foot of the Alps and on the Central Plateau. MHB data showed a continuing increase. But



These Crag Martins (left) found in Tarragona on the Spanish Mediterranean coast starved to death because of the cold weather. The index (right) shows a decline by about half from 2020 to 2021.



The Greenfinch population below 1000 m has halved since 2021. Above 1000 m it remains stable. However, only about one tenth of Greenfinches in Switzerland live above 1000 m.



Skylarks on the Central Plateau and in the Jura continue to decrease. Only the small population in the Alps is more or less stable following a marked decline that came to a halt around 2009.

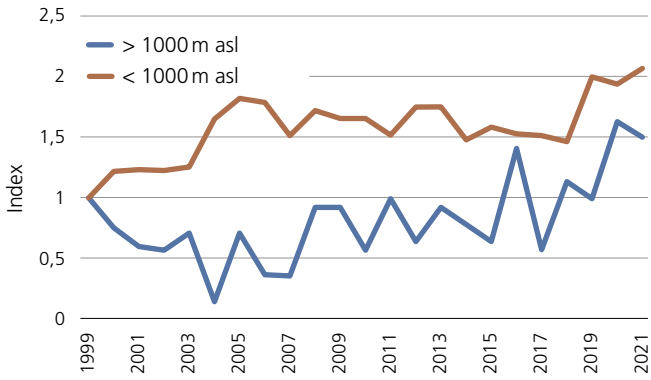
winter 2020/21 seems to have caused a setback. A severe cold spell on the Spanish Mediterranean coast claimed countless victims – most probably including many birds with breeding sites in Switzerland. MHB data indicate that numbers dropped to about half the 2020 level. In many cases, short-distance migrants have seen more positive trends in recent years than birds migrating to sub-Saharan Africa. Common Chiffchaff and Willow Warbler, for instance, have opposite trends. But the collapse of Crag Martin populations illustrates that species which stay in Europe year-round also face considerable risks.

Bird of the Year in downward spiral

BirdLife Switzerland has chosen the Eurasian Skylark as bird of the year. Without doubt, this threatened species is in dire need of attention. The small population in the Alps appears to be fairly stable. But trends based on MHB data from the Central Plateau, the northern foot of the Alps and the Jura indicate a persistent decline. The situation is especially bleak in regions dominated by livestock farming. In the Jura, for instance, the number of territories has dropped by more than half since 1999.

Pied Flycatcher doing better than expected

Several years ago, studies from different countries already warned that conditions could worsen for European Pied Flycatchers. From the extensive research on this species, we know that reproductive success depends heavily on the right timing. The supply of insects, its main source of nestling food, is associated with trees leafing out. As leaf buds burst earlier due to climate change, late arrivals can miss this brief phase of optimal food supply. A new study from the UK suggests that birds are able to at least partially avoid this trap. In Switzerland, too, Pied Flycatchers have been doing well. The population above 1000 m asl has increased by about 50 % since 1999, albeit with marked annual fluctuations. In the main distribution range below 1000 m, numbers have actually doubled.



The Pied Flycatcher's main range is in the lowlands of central and eastern Switzerland. Population sizes fluctuate heavily and vary across regions, but are fairly stable overall.

Regular breeders in Switzerland

Population trends for 176 regular breeding birds[1] in Switzerland for the entire survey period (1990–2021) and for the last ten years (2012–2021). Trends shown as +++ or – – – signify a change by more than a factor of 5, while ++ or – – marks a change between a factor of 2 and 5 and + or – a change by less than a factor of 2. The symbol • means that no statistically significant change was detected. This is the case for populations that are fluctuating or stable, or for which we have insufficient data. The colours in the last two columns indicate the status on the Swiss Red List (RL): red = CR – Critically Endangered, light red = EN – Endangered, yellow = VU – Vulnerable, light green = NT – Near Threatened, green = LC – Least Concern.

Species	Trend 1990–2021	Trend 2012–2021	RL 2010	RL 2021
Common Quail	•	•	LC	VU
Rock Partridge	•	++	NT	VU
Grey Partridge	– – –	– – –	CR	CR
Hazel Grouse	•	•	NT	NT
Rock Ptarmigan[4]	–	•	NT	NT
Western Capercaillie	–	•	EN	EN
Black Grouse	+	•	NT	NT
Common Eider	•	•	VU	EN
Goosander	++	+	VU	NT
Red-crested Pochard	+++	•	NT	NT
Common Pochard	•	•	EN	EN
Tufted Duck	+	•	VU	VU
Gadwall	++	•	EN	VU
Mallard	+	•	LC	LC
Little Grebe	•	•	VU	NT
Great Crested Grebe	–	–	LC	NT
Black-necked Grebe	•	•	VU	VU
Stock Dove	++	++	LC	LC
Common Woodpigeon	++	+	LC	LC
European Turtle-dove	– –	–	NT	EN
Eurasian Collared-dove	+	+	LC	LC
European Nightjar	–	•	EN	EN
Alpine Swift	++	+	NT	NT
Pallid Swift	++	•	VU	VU
Common Swift[2]		•	NT	NT
Common Cuckoo	+	+	NT	NT
Western Water Rail	•	+	LC	LC
Corncrake	•	•	CR	CR
Spotted Crake	++	•	VU	VU
Little Crake	+++	•	VU	VU
Common Moorhen	+	+	LC	LC
Common Coot	+	•	LC	LC
White Stork	++	++	VU	NT
Common Little Bittern	+	•	EN	EN
Grey Heron	+	+	LC	LC
Purple Heron	+++	•	CR	CR
Great Cormorant	+++	++	LC	LC
Little Ringed Plover	•	•	EN	EN
Northern Lapwing	•	+	CR	EN
Eurasian Curlew	– – –	•	CR	CR
Eurasian Woodcock	–	•	VU	VU
Common Snipe	– – –	•	CR	CR
Common Sandpiper	•	+	EN	EN
Black-headed Gull	– –	–	EN	EN
Mediterranean Gull	•	•	VU	VU
Mew Gull	•	•	EN	VU

Species	Trend 1990–2021	Trend 2012–2021	RL 2010	RL 2021
Yellow-legged Gull	+++	•	LC	LC
Common Tern	++	+	NT	NT
Common Barn-owl	–	+	NT	NT
Eurasian Pygmy-owl	•	•	LC	LC
Little Owl	++	+	EN	EN
Boreal Owl	–	•	LC	NT
Eurasian Scops-owl	++	++	EN	EN
Northern Long-eared Owl[3]	•	•	NT	LC
Tawny Owl[2]		+	LC	LC
Eurasian Eagle-owl	•	+	EN	VU
European Honey-buzzard	+	•	NT	NT
Bearded Vulture	+++	++	CR	CR
Golden Eagle	+	+	VU	NT
Eurasian Sparrowhawk	•	•	LC	LC
Northern Goshawk	+	•	LC	NT
Red Kite	+++	+	LC	LC
Black Kite[2]		•	LC	LC
Eurasian Buzzard	+	•	LC	LC
Common Hoopoe	+	•	VU	VU
European Bee-eater	+++	+++	EN	VU
Common Kingfisher	+	•	VU	VU
Eurasian Wryneck	•	+	NT	NT
Grey-faced Woodpecker	– –	–	VU	EN
Eurasian Green Woodpecker[3]	+	+	LC	LC
Black Woodpecker	++	+	LC	LC
Three-toed Woodpecker	•	+	LC	LC
Middle Spotted Woodpecker	++	+	NT	NT
Lesser Spotted Woodpecker	+	+	LC	LC
Great Spotted Woodpecker	++	•	LC	LC
Common Kestrel	++	+	NT	NT
Eurasian Hobby	+	+	NT	NT
Peregrine Falcon	+	–	NT	VU
Eurasian Golden Oriole	+	+	LC	LC
Red-backed Shrike	–	+	LC	NT
Woodchat Shrike	– – –	•	CR	CR
Red-billed Chough	++	+	EN	EN
Yellow-billed Chough[2]		•	LC	LC
Eurasian Jay	+	•	LC	LC
Eurasian Magpie	++	+	LC	LC
Northern Nutcracker	•	•	LC	LC
Eurasian Jackdaw	+	•	VU	NT
Rook	+++	++	LC	LC
Common Raven	+	•	LC	LC
Carrion Crow	++	•	LC	LC
Coal Tit[2]		•	LC	LC
Crested Tit	+	•	LC	LC

Species	Trend 1990–2021	Trend 2012–2021	RL 2010	RL 2021
Marsh Tit	+	•	LC	LC
Alpine or Willow Tit[2]		+	LC	LC
Eurasian Blue Tit	++	•	LC	LC
Great Tit	+	•	LC	LC
Woodlark	+	++	VU	VU
Eurasian Skylark	–	•	NT	VU
Bearded Reedling	+	•	VU	VU
Melodious Warbler	+	+	NT	NT
Icterine Warbler	–––	•	VU	EN
Marsh Warbler	•	•	LC	LC
Common Reed-warbler	•	+	LC	LC
Great Reed-warbler	++	+	NT	NT
Savi's Warbler	+	+	NT	NT
Com. Grasshopper-warbler	+	•	NT	NT
Northern House Martin	–	•	NT	NT
Barn Swallow	•	+	LC	NT
Eurasian Crag Martin	++	+	LC	LC
Collared Sand Martin	–	++	VU	EN
Western Bonelli's Warbler	++	+	LC	LC
Wood Warbler	––	––	VU	VU
Willow Warbler	––	–	VU	VU
Common Chiffchaff	+	+	LC	LC
Long-tailed Tit	+	•	LC	LC
Eurasian Blackcap	+	+	LC	LC
Garden Warbler	–	–	NT	VU
Barred Warbler	–––	–––	VU	VU
Lesser Whitethroat	+	+	LC	LC
Common Whitethroat	+	+	NT	NT
Short-toed Treecreeper	+	+	LC	LC
Eurasian Treecreeper	++	•	LC	LC
Eurasian Nuthatch	–	–	LC	LC
Wallcreeper	•	•	LC	LC
Northern Wren	+	•	LC	LC
White-throated Dipper	+	•	LC	LC
Common Starling	+	+	LC	LC
Mistle Thrush	+	+	LC	LC
Song Thrush	+	•	LC	LC
Eurasian Blackbird	+	•	LC	LC
Fieldfare	––	–	VU	LC
Ring Ouzel	–	•	VU	NT
Spotted Flycatcher	–	•	LC	NT
European Robin	+	+	LC	LC

Species	Trend 1990–2021	Trend 2012–2021	RL 2010	RL 2021
Bluethroat	++	•	VU	VU
Common Nightingale	+	•	NT	LC
European Pied Flycatcher[2]		•	LC	LC
Black Redstart	+	+	LC	LC
Common Redstart	•	•	NT	NT
Rufous-tailed Rock-thrush	–	•	LC	LC
Blue Rock-thrush	•	•	EN	EN
Whinchat	–	+	VU	VU
Common Stonechat	++	+	NT	NT
Northern Wheatear	+	+	LC	LC
Goldcrest	+	•	LC	LC
Common Firecrest	•	•	LC	LC
Alpine Accentor	–	•	LC	LC
Dunnock	+	•	LC	LC
House Sparrow	+	+	LC	LC
Eurasian Tree Sparrow	+	•	LC	LC
White-winged Snowfinch	–	•	LC	NT
Tree Pipit	–	•	LC	NT
Meadow Pipit	––	•	VU	VU
Water Pipit	+	+	LC	LC
Tawny Pipit	•	•	EN	EN
Western Yellow Wagtail	•	•	NT	VU
Grey Wagtail	•	•	LC	LC
White Wagtail	–	•	LC	LC
Common Chaffinch	+	•	LC	LC
Hawfinch	+	•	LC	LC
Common Rosefinch	+	•	VU	EN
Eurasian Bullfinch	–	•	LC	LC
European Greenfinch	–	–	LC	NT
Common Linnet	+	+	NT	LC
Redpoll	•	––	LC	LC
Red Crossbill[2]		•	LC	LC
European Goldfinch	•	+	LC	LC
Citril Finch	–	•	LC	NT
European Serin	•	+	LC	LC
Eurasian Siskin[2]		•	LC	LC
Corn Bunting	––	––	VU	CR
Rock Bunting	+	•	LC	LC
Ortolan Bunting	–––	–––	CR	CR
Cirl Bunting	+	++	NT	NT
Yellowhammer	•	–	LC	LC
Reed Bunting	–	+	VU	NT

[1] This includes species categorised as regular breeders at least once since 1990 (i.e. the species has bred in Switzerland in at least nine of ten consecutive years) for which we have the necessary data. 179 species belong in this category, not counting introduced species (i.e. Mute Swan, Ruddy Shelduck, Common Pheasant). No assessment is possible for White-backed Woodpecker, Collared Flycatcher and Italian Sparrow due to lack of data.
[2] Survey period 1999–2021
[3] Survey period 1996–2021
[4] Survey period 1995–2021

Irregular and exceptional breeders

Since 2000, a further 26 species have bred in Switzerland irregularly or exceptionally. Their breeding populations are documented as consistently as possible (table available online in the section «Further analyses»).

Further information
www.vogelwarte.ch/state/breeding

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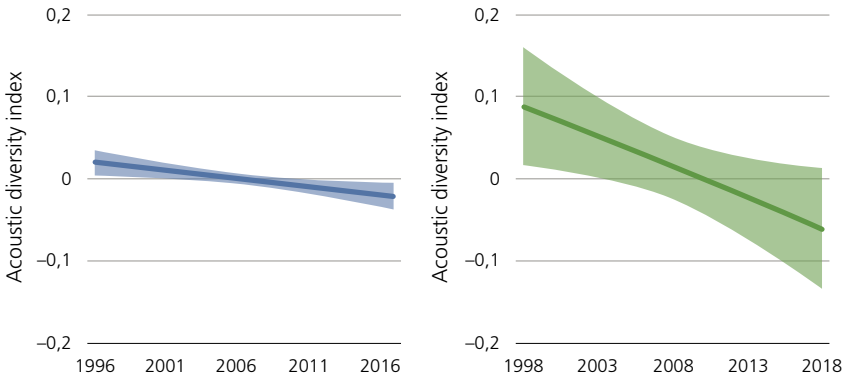
Müller, C. (2022): Seltene und bemerkenswerte Brutvögel 2021 in der Schweiz. Ornithol. Beob. 118 (in press).

Knaus, P., S. Antoniazza, V. Keller, T. Sattler, H. Schmid & N. Strebel (2021): Liste rouge des oiseaux nicheurs. Espèces menacées en Suisse. L'environnement pratique n° 2124. Office fédéral de l'environnement (OFEV), Berne, et Station ornithologique suisse, Sempach.

Loss of acoustic diversity

One of the main peculiarities of birds is their diversity of song. When many species sing together, they create a particular soundscape. As bird communities change over time, so do the soundscapes. But how can these soundscapes be measured? Is it possible to identify trends over time and space? The Swiss Ornithological Institute contributed to an international study that explored these questions.



Changes in reconstructed soundscapes in North America (left) and Europe (right) over a period of 20 years

Reconstructed soundscapes

The study is based on data collected by skilled volunteers within long-term monitoring programmes in Europe and North America. Data from Switzerland came from the scheme «Monitoring common breeding birds» (MHB). The data were combined with song recordings from the platform xeno-canto.org to reconstruct soundscapes for each monitoring site reaching back to the 1990s. The resulting soundscapes for more than 200 000 locations in Europe and North America were then analysed in terms of acoustic diversity. Soundscapes were built to reflect not only the species present, but also their abundance and intensity of song.

The study shows that acoustic diversity of birdsong has declined more steeply in Europe since 1996 than in North America. In Europe, it declined chiefly in the west and northwest, while some increases were detected in parts of the south and northeast of the continent.

Birdsong helps us rest

The results indicate that the changes in bird communities in the past decades have led to impoverished soundscapes. Among the species that have declined in Switzerland since the 1990s are Eurasian Skylark, Whinchat and Tree Pipit.

Vibrant birdsong is not just something beautiful to experience. It actually improves our capacity for rest and recreation out of doors. It follows that the gradual loss of acoustic diversity can affect our mental health. Fortunately, the dystopian scenario of a «silent spring» described in Rachel Carson's 1962 book will not come true any time soon. But declining acoustic diversity is already having subtle effects on how we humans experience the world.

Further information
www.vogelwarte.ch/state/breeding

Reference
Morrison, C. A. et al. (2021): Bird population declines and species turnover are changing the acoustic properties of spring soundscapes. Nature Communications 12: 6217.

In many places, the Skylark with its characteristic song flight has disappeared or become scarce, resulting in a huge loss for the soundscape.

In many places, the Skylark with its characteristic song flight has disappeared or become scarce, resulting in a huge loss for the soundscape.

Among the swallows swooping over lakes and rivers, the aptly named Red-rumped Swallow is easy to spot.

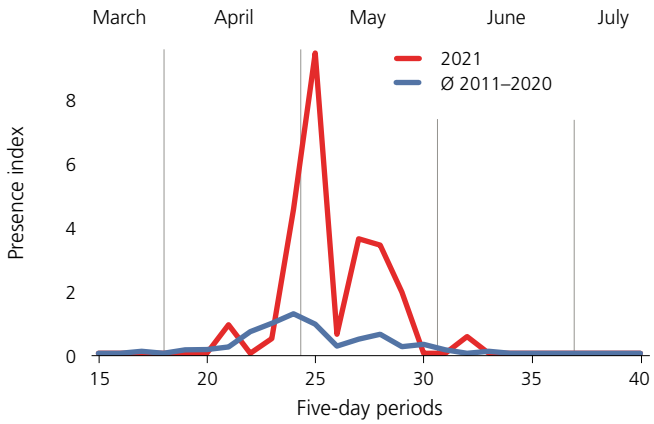
Capricious spring weather

Most years have days of bad weather that force large flocks of migratory birds to interrupt their passage. This phenomenon was particularly pronounced in 2021, which saw the coolest April in 20 years, while May was the coldest and wettest since records began in 1864. Every now and then, a Red-rumped Swallow could be spotted among the swallows that congregated over lakes and rivers. The species colonised France and Italy from the 1960s and has since been pushing north on the Iberian Peninsula, in southern France and the northern Balkans. It has been seen in Switzerland almost every spring since 2000, and the trend is rising despite wide fluctuations. In the spring of 2021 the greatest influx so far was recorded: between 11 April and 5 June, Red-rumped Swallows were observed in more than 30 kilometre squares, the average of the last five years being 16 squares. Apart from a few places in valleys in the Valais and Ticino, where the birds often stay for several days, sightings at a single location rarely persist for more than two days. It is all the more unusual that two Red-rumped Swallows were seen in Neeracherried ZH on six consecutive days in May 2021.

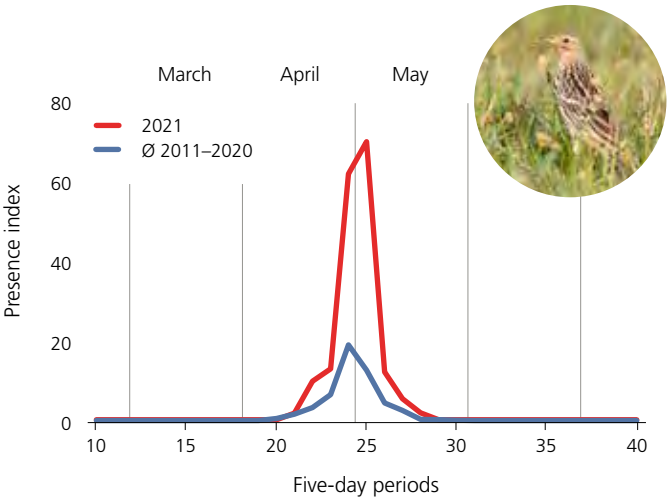
More record highs

Other migratory birds on spring passage were also seen in numbers higher than any registered since 1990. The presence index of Mediterranean Gull, for example, was 2.5 times the average of the last ten years. Mediterranean Gulls were spotted almost daily throughout April and May in Fanel BE

In our country, Red-rumped Swallows are most often seen by lakes and rivers, as the map of sightings in 2021 (orange) and the years before (yellow) shows.



Although most sightings were recorded in April and May, as usual, the presence index for 2021 (red) was much higher than the 2011–2020 average (blue).



Red-throated Pipits are mainly spotted in Switzerland during spring migration, which culminates in late April and early May. The 2021 presence index (red) is much higher than the average of the last ten years (blue).

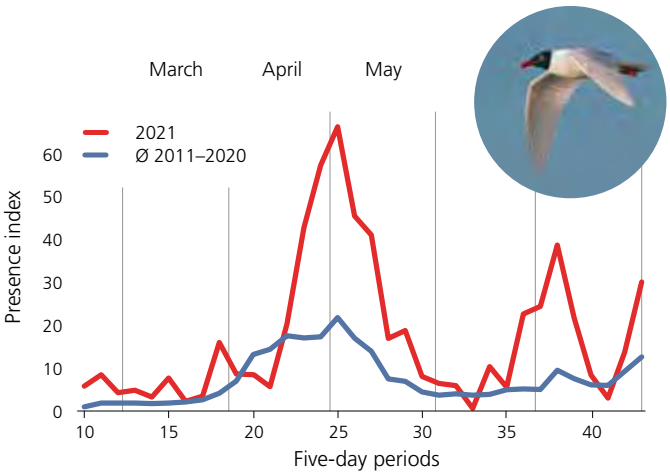
Red-throated Pipits are most often seen on the Central Plateau. The map shows the maximum number of birds per kilometre square in spring 2021 between 11 April and 17 May: yellow = 1–3 ind., orange = 4–10 ind., red = 11–14 ind.; the white dots represent spring sightings in earlier years.

and Prévérenges VD, with maximum numbers of 18 and 17 birds respectively. The spring peak was reached on 26 April, when 33 birds were seen near Yverdon VD. Groups this size are observed fairly often in autumn, but are much rarer in spring: before 2021, there were only four known records of groups larger than 15 birds in spring.

Similarly, spring migration of Red-throated Pipits was the heaviest since 1990; compared to the 2011–2020 average, the species was sighted in twice as many locations, and the presence index was four times as high. The first record of Red-throated Pipit in Switzerland dates back to 1951; since the mid-1960s, there have been regular spring and autumn sightings here.

Noteworthy floods

In the wake of the floods in summer 2021, the waterlogged areas along lakeshores turned into attractive stopover sites for some migratory species, notably waders. Unusually large numbers of waders congregated at Lake Sempach LU between July and September, for example. While the average for this period was only 7 species at Lake Sempach from 2001 to 2020, a remarkable 19 species were registered in 2021. The sum of daily maxima for waders between July and September is even more impressive: it was 3829 in 2021, the 2001–2020 average being a mere 61. Although weather conditions were exceptional and in some places dramatic, the example goes to show that migratory birds will take advantage of suitable stopover sites, even temporary ones, straight away.



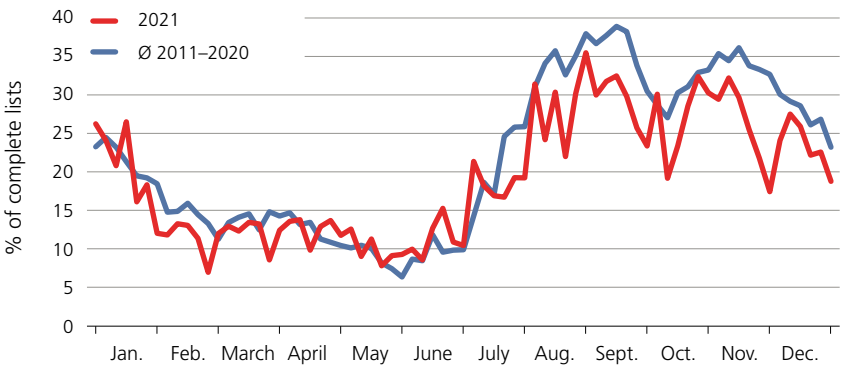
The presence index reveals that spring migration of Mediterranean Gulls was more marked in 2021 (red) compared to the 2011–2020 average (blue), especially in early May.

Waders such as Common Ringed Plover, Dunlin and Little Stint, and dabbling ducks such as Common Teal and Garganey found ideal stopover conditions at Lake Sempach in autumn 2021.

Winter numbers of Kingfishers can vary from one year to the next depending on weather conditions. But losses are normally made up again in a few years.

All reports are helpful

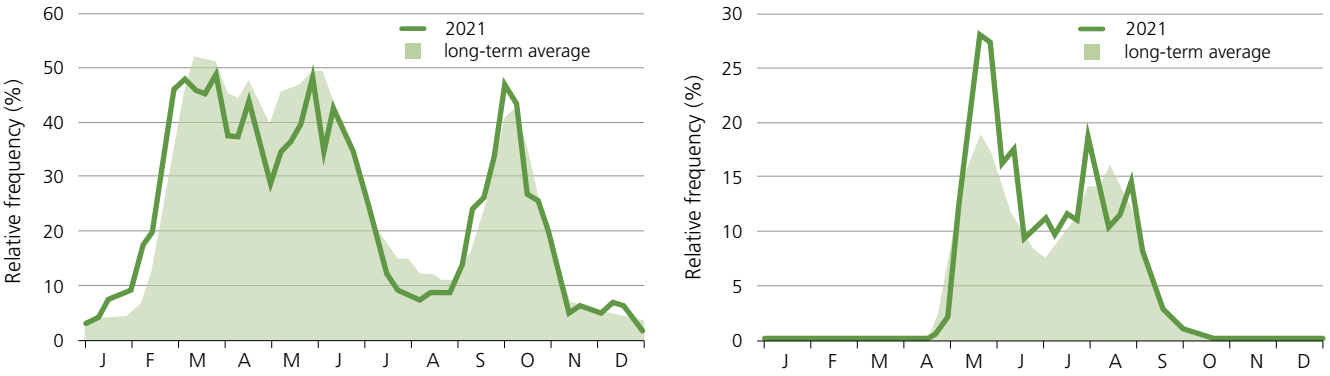
Using complete species lists to collect ornithological data has many advantages. It involves writing down all species that are detected on an excursion, even common ones like Carrion Crows. Such lists not only tell us which species were detected by sight or sound, but also which species were not found. As a further advantage, increasing observer intensity does not affect numbers collected in this fashion. Complete lists therefore illustrate the seasonal presence of birds realistically and enable comparisons between different years or with long-term averages.



Phenology of Common Kingfisher based on data from complete species lists. The values indicate the percentage of complete species lists that include the Kingfisher.

Jewel of the river

Looking at the phenology of the Kingfisher based on complete species lists, we see an increase in frequency from July. This is initially down to juveniles leaving their parents' territories. They are followed by birds passing through, whose numbers peak in September. A second high in November could mark the arrival of winter visitors. Observations then gradually become less frequent, which could be due to winter mortality and, from February, movements to the breeding sites. Comparing the 2021 graph with the ten-year average, there is a notable low in February 2021, which could be related to the short, severe cold spell in a period of otherwise mild weather. Presence is below average from August to



Based on complete species lists submitted on ornitho.ch, these charts show the percentage of lists that contain Song Thrush (left) or Red-backed Shrike (right) throughout the year.

December as well, possibly as a result of poor breeding success in spring and summer 2021, when there was a lot of bad weather.

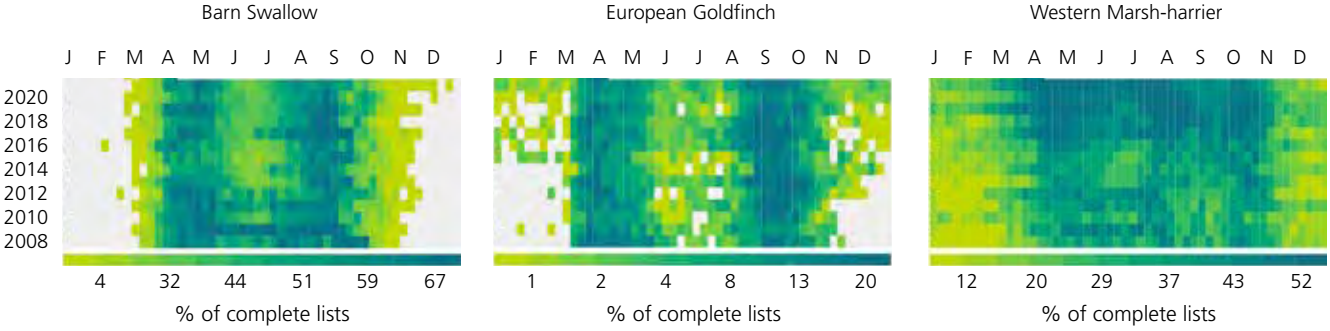
A treasure trove of information

Various maps and charts on species found in Switzerland have recently been made available on ornitho.ch. Among them are diagrams on spatial and temporal occurrence, flock size and altitudinal distribution. These illustrations are based on the complete species lists. In the case of the Song Thrush, we see the early arrival of birds at the beginning of 2021, perhaps related to the unusually mild weather in February. The first Red-backed Shrikes arrived in late April 2021, with a slight delay. In May, however, this species was sighted with above-average frequency: it was listed on one out of four species lists in this time period, compared to one out of five on average. The high numbers may have been down to delays in onward migration due to bad weather.

Another type of image allows for comparisons not only week by week, but year by year. The diagrams show that Barn Swallows now tend to arrive somewhat earlier in spring and leave a bit later in autumn. This tendency is even more marked in the case of Western Marsh-harrier; since 2012, it has been seen much more often in late autumn and early winter, and winter sightings have been recorded almost annually since 2015. Similarly, winter sightings of European Goldfinch have also become more frequent over the years.

Bird enthusiasts can turn to these diagrams, updated in real time, for information on many aspects of birdlife in Switzerland, for example the current numbers of returning migrants compared to the long-term average.

Further information
www.vogelwarte.ch/state/migration



In this diagram type, relative species frequency, i.e. the percentage of complete species lists on which a species occurs, is represented by a green square; darker squares denote higher frequency. Each square gives the frequency calculated for one week. Weeks in which the species does not appear on the complete species lists are grey.

Black-winged Kite on the horizon

The breeding range of Black-winged Kite stretches from Africa across the Indian subcontinent to Southeast Asia and reaches its northwestern limit in Europe. The Black-winged Kite presumably colonised the Iberian Peninsula from North Africa in the 1960s and arrived in France in the 1990s. According to the second European Breeding Bird Atlas, the species continues to spread in southwestern France especially, where population size is currently estimated at 200–250 pairs. A similar dynamic of expansion is apparent in the Middle East. The Black-winged Kite colonised Israel in the 2000s and southeastern Turkey in the 2010s.

Although the species is considered to be mainly resident, Black-winged Kites are known to range widely from their breeding sites, as documented, among other sources, by several sightings in central Europe in the 19th century. Since the first Swiss record in 1990, the species has been registered 43 times; it has been seen annually since 2014. The distribution of observations over time confirms that the species is becoming more frequent: records went from 2 in the 1990s and 5 in the 2000s to 18 in the 2010s, with 10 sightings in the year 2020 alone and at least 8 in 2021. Like in Germany and the rest of Europe beyond the breeding range, there are three peaks in annual occurrence, in April/May, August and October. The birds rarely stay in one place for longer than 1–2 days. Exceptions include a Black-winged Kite that was observed from August to November 2008 near Laconnex GE, and another that was seen from May to July 2020 in Grosses Moos BE/FR.

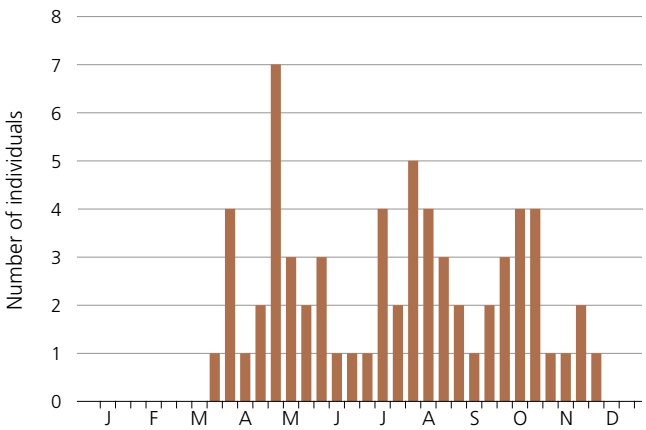
Influxes have become more frequent in Germany as well. Of 51 sightings recorded between 2010 and 2019, 18 are from 2019 alone: a breeding attempt was even registered that same year near Cuxhaven in northern Germany. Given the current range expansion, probably bolstered by climate change, we may soon see this hunter of small mammals settling in Switzerland.

Swiss Rarities Committee

The Swiss Rarities Committee (Swiss RC) is an independent group of experts whose main task is to verify whether reports of unusual bird observations are sufficiently documented to be cited in scientific literature. The committee's administrative office is at the Swiss Ornithological Institute. Swiss RC evaluates records of species that are rarely seen in Switzerland, such as the Black-winged Kite. But it also looks at records of species that may be common but are rarely seen at a specific time of year or in a particular part of the country, as well as species that breed here for the first time. If there are no photos, videos or audio recordings to support the records, the evaluation is based on a report containing a detailed description of the observation. Cases that are submitted without a report but for which photos, videos or audio recordings exist online are also evaluated by Swiss RC; they are, however, published only with indication of the corresponding website. Swiss RC publishes an annual report in German (in «Ornithologischer Beobachter») and French (in «Nos Oiseaux».)

Further information

www.vogelwarte.ch/src



Annual occurrence of Black-winged Kite in Switzerland since the first report in 1990: three quarters of the records date from April/May, August and October.

Sightings are scattered across the entire Central Plateau and the Jura. Black-winged Kites appear to avoid the Alps, where only three sightings have been recorded.

Black-winged Kites can breed several times a year and in all seasons. In Israel, as many as 4–5 broods have been recorded in one year!

Lake Constance once again held by far the largest number of Northern Pintail, around 1200 individuals, in January 2022. The wintering populations of Northern Pintail are increasing in the rest of the country as well.

Opposite trends among waterbirds

The total Swiss count, including the German and French areas of Lake Constance and Lake Geneva, was 420 000 in November 2021, which is the third lowest since the waterbird census began in 1991. Only the November counts in 2019 and 2020 were slightly lower. The downtrend in the January counts has become more marked in the last five years.

Few surprises from our winter visitors

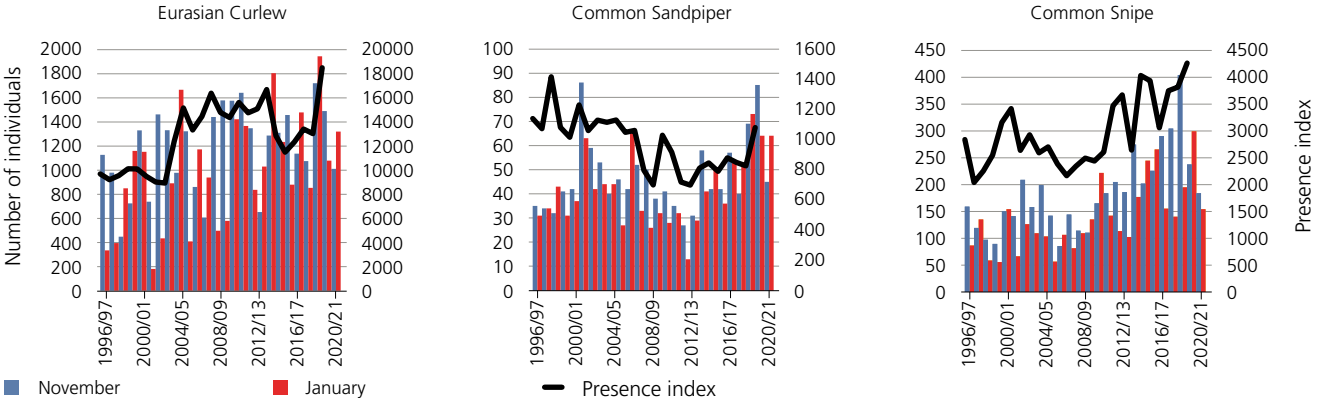
In January 2022, only about 430 000 individuals were counted, just marginally more than two months earlier. The record low January counts for Tufted Duck (82 000 individuals), Common Pochard (48 000) and Mallard (35 000) are comparable to counts from around 1970. In the case of Black-headed Gulls (43 000) and possibly Common Coots (86 000), the declines of the past decades appear to be flattening out. The increases observed in recent years in counts of Red-crested Pochard (33 000) and Black-necked Grebe (5300) also appear to be levelling off. But the increase in January numbers continues for species wintering mainly on Lake Constance, like Eurasian Wigeon (4000) and Northern Pintail (1600) but also Common Moorhen (1200) and Ruddy Shelduck (1600). The last two species reached new record highs in January 2022. Greylag Geese counts also rose to a new maximum in November 2021 at 2500 individuals.

January numbers were exceptionally low for Common Eider (25), whose counts have been in decline for years, Lesser Black-backed Gull (7), generally

	November 2021	January 2022
Eurasian Oystercatcher	1	0
Northern Lapwing	29	16
Eurasian Curlew	1008	1317
Black-tailed Godwit	0	3
Spotted Redshank	1	0
Common Greenshank	3	1
Green Sandpiper	19	14
Common Sandpiper	45	64
Common Snipe	185	155
Dunlin	36	4
Red Phalarope	1	0

Number of waders counted during the waterbird census 2021/22 in Switzerland (including foreign parts of Lake Constance and Lake Geneva).

In the November 2021 waterbird census, the Green Sandpiper was recorded on no less than 12 survey stretches.



Population trends of the three waders included in the winter census since 1996/97, showing the results of the waterbird census (left scale) as well as the presence index (right scale). Eurasian Curlew and Common Snipe have a positive overall trend, while that of Common Sandpiper is less clear.

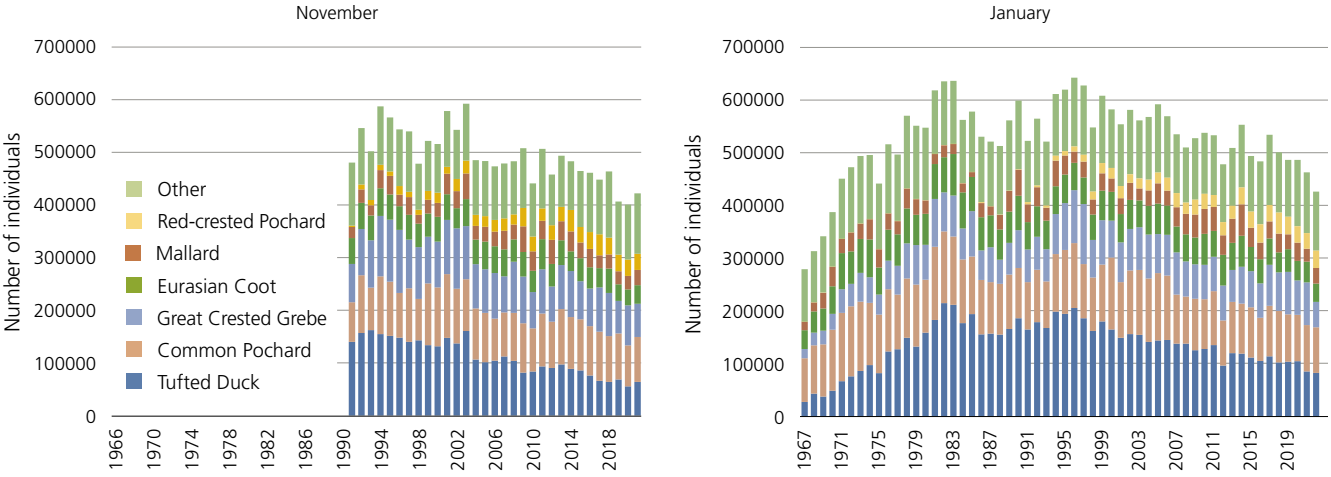
a rare winter visitor, and Great Cormorant (4400), whose January count was the lowest since the 1980s. While the overall total of waterbirds is declining, the majority of individual species counts are increasing (see pie charts on page 30). There have been some important increases over the past years in rare winter visitors such as Whooper Swan and Tundra Swan, Great White Egret and Black-necked Grebe.

First overview of wader numbers

Among the waders, Eurasian Curlew, Common Sandpiper and Common Snipe have been part of the waterbird census since 1996/97. While these three species regularly winter in our country, many waders are mainly seen here during spring and autumn migration. A mild climate could, however, prompt certain species to winter here in greater numbers. So as not to miss the signs of such a development, all waders will be included in the waterbird census starting in 2021/22. As waders are already being surveyed in the waterbird counts at Lake Constance and in some neighbouring countries, this adjustment will serve to homogenise the species set. Like some other species included in the waterbird census, waders are also found away from lakes and rivers, for example on flooded meadows. The results of the waterbird counts are therefore expected to be lower than the total population size, but will nevertheless provide information on the relative population trend.

Besides Curlew, Sandpiper and Snipe, seven more wader species were counted during the November census and five more in January. It will be interesting to see how the trends in winter populations of these species develop in the coming years.

Further information
www.vogelwarte.ch/state/winter



Waterbird numbers in Switzerland (including cross-border areas) since the start of the census in November 1991 and in January 1967.

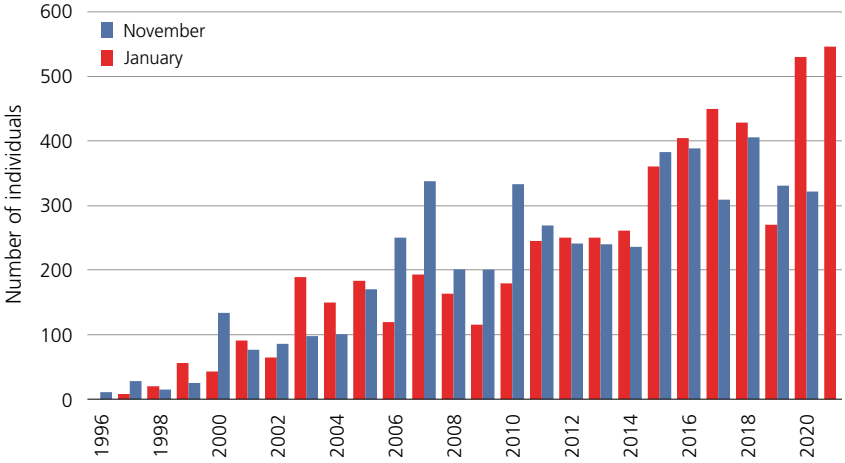
Great White Egrets in breeding plumage are still a rare sight in Switzerland. Apart from a pale area at the base, the beak is black in breeding birds, the legs are reddish.

Great White Egret – a ravishing visitor

The Great White Egret is the most widespread of all heron species. Its four subspecies breed on all continents apart from Antarctica and occupy mainly the temperate, subtropical and tropical zones. Large parts of eastern Europe lie within its breeding range, but there are only scattered breeding sites in the rest of Europe. The first confirmed breeding record in Switzerland was reported in 2013 near Chevroux at the southern end of Lake Neuchâtel. Since then a few breeding attempts or display and nesting activities have been observed, but no successful breeding event. Suitable breeding habitat are reedbeds on lakes and rivers as well as wetlands with trees and shrubs.

Decline caused by extravagant fashion trend

The main reason behind the gaping absence in western Europe of the Great White Egret as a breeding bird

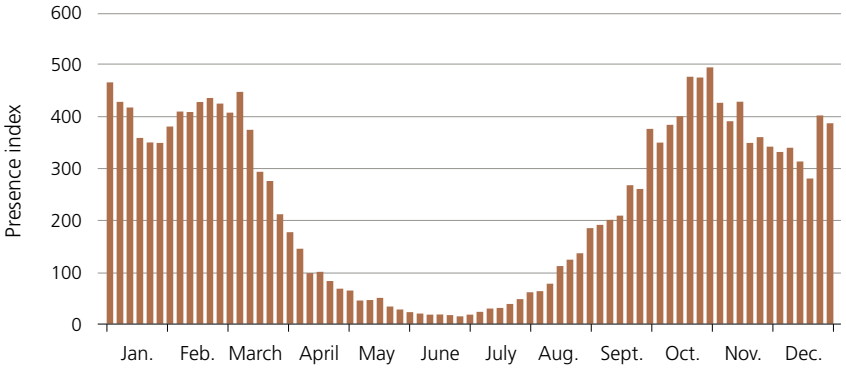


The results of the waterbird counts confirm a steady increase in wintering Great White Egrets.

A 19th-century fashion fad caused hundreds of thousands or even millions of birds to perish.

is human persecution. The decorative white feathers were popular in the 19th century as adornments on clothes (mainly women's hats). Birds' wings or even whole stuffed birds served as accessories. Several species, including Great White Egrets and Little Egrets, were killed for this purpose. In parts of the distribution range, mass persecution drove the species to extinction. At the beginning of the 20th century, awareness of the devastating consequences of such fashion excesses grew. Affected species were gradually put under protection. Since the mid 20th century, populations have begun to recover. Currently, the European breeding population is estimated at 40 000–65 000 pairs, 85 % of which is found in Russia, Ukraine, Belarus and Hungary. The recovery has also prompted an expansion to the north and west.

The Great White Egret is a widespread visitor in the lowlands both north and south of the Alps. The illustration shows January records in the period 2018–2022. The dot size indicates the maximum count per survey stretch in the waterbird census, or the highest number recorded per kilometre square on ornitho.ch.



The Great White Egret is common here between August and March, but quite scarce in the summer months.

Wintering Great White Egrets are skilful hunters of mice and often use farmland to search for food.

Between 1980 and 2012, breeding was recorded for the first time in 13 European countries. A significant increase in the wintering population has tended to precede the occupation of new breeding grounds.

Increase in winter numbers

In Switzerland, too, the number of wintering birds has been growing. The results of the waterbird census are evidence of this impressive increase, with counts now in the region of 500 individuals. Because Great White Egrets are also found far from waterbodies, the waterbird census only records a portion of the wintering population. The actual numbers are therefore suspected to be considerably higher.

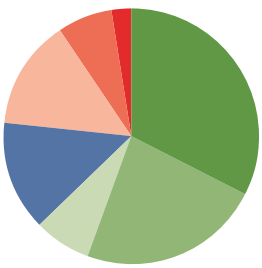
Despite a steady increase in winter visitors, the species has not yet established itself as a breeding bird in Switzerland. One reason could be the lack of potential nesting sites, given that large and undisturbed reedbeds are rare.

Wintering waterbirds in Switzerland

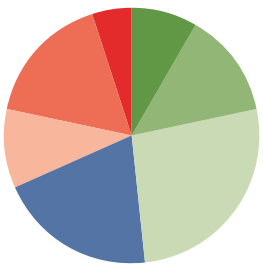
Current population size and population trend for waterbirds wintering in Switzerland (including the German and French parts of Lake Constance and Lake Geneva) for the entire survey period (1967–2022) and for the last 20 years (2003–2022). Trends are based on January counts. Trends shown as +++ or – – – signify a change by more than a factor of 5, while ++ or – – marks a change between a factor of 2 and 5 and + or – a change by less than a factor of 2. The symbol • means that no statistically significant change was detected. This is the case for populations that are actually stable but also for those that fluctuate heavily.

Species	Ind. November 2021	Ind. January 2022	Trend 1967–2022	Trend 2003–2022
Mute Swan	7163	8069	+	+
Whooper Swan	832	60	+++	++
Tundra Swan	24	6		++
Barnacle Goose	6	5		–
Canada Goose	5	5		– –
Greylag Goose	1434	2464	+++	++
Bean Goose	7	0	– – –	– – –
Gr. White-fronted Goose	2	1	++	– –
Long-tailed Duck	1	0	•	– –
Common Eider	25	31	–	– –
Velvet Scoter	37	23	++	•
Common Scoter	0	0	•	+++
Common Goldeneye	3076	774	– –	– –
Smew	21	5	– –	– –
Goosander	5202	4022	++	+
Red-breasted Merganser	81	58	++	•
Egyptian Goose	151	168		+++
Common Shelduck	24	6	+++	+
Ruddy Shelduck	1610	621		+++
Mandarin Duck	63	91		•
Red-crested Pochard	32823	30795	+++	+
Common Pochard	48387	62995	++	•
Ferruginous Duck	56	70	+++	++
Tufted Duck	82414	63852	++	–
Greater Scaup	14	7	– –	– – –
Garganey	0	1	•	– – –
Northern Shoveler	834	1865	+++	•
Gadwall	7464	15559	+++	+
Eurasian Wigeon	3985	2853	+++	++
Mallard	34659	35537	–	–
Northern Pintail	1563	1525	+++	+

Species	Ind. November 2021	Ind. January 2022	Trend 1967–2022	Trend 2003–2022
Common Teal	8984	10468	+	+
Little Grebe	3453	3485	–	•
Red-necked Grebe	10	6	•	– –
Great Crested Grebe	29624	28799	+	•
Horned Grebe	12	7	++	++
Black-necked Grebe	5301	4042	++	++
Common Moorhen	1128	1175		+
Common Coot	86154	85518	–	–
Red-throated Loon	11	14	+++	•
Arctic Loon	74	98	+++	+
Common Loon	0	1	+++	•
Eurasian Bittern	15	3		•
Grey Heron	1642	1657	++	+
Great White Egret	442	390		+++
Great Cormorant	4411	6571	+++	•
Eurasian Curlew	1317	1008		+
Common Snipe	155	185		++
Common Sandpiper	64	45		+
Little Gull	2	10	•	– –
Black-headed Gull	43053	37707	–	–
Mediterranean Gull	2	6	+++	+++
Mew Gull	1440	133	–	– –
Lesser Black-backed Gull	7	19	•	–
European Herring Gull	4	8		– –
Yellow-legged Gull	3396	5856		+
Caspian Gull	77	71		
Great Black-backed Gull	4	0	++	•
Yellow-l./Herring/Casp. G.	1064	864		
Common Kingfisher	251	431		+
White-throated Dipper	981	958		+
Grey Wagtail	798	884		+



Trend 1967–2022
(44 species)



Trend 2002–2022
(60 species)

+++ increase > factor of 5
++ increase between factor of 2 and factor of 5
\+ increase < factor of 2
• not significant or fluctuating
– decline < factor of 2
– – decline between factor of 2 and factor of 5
– – – decline > factor of 5

In the long-term, the wintering populations of most species have increased. Egyptian Goose, Great White Egret, Ruddy Shelduck and Greylag Goose have seen the strongest relative increase in the last 20 years.

Further information
www.vogelwarte.ch/state/winter

At 48 000 individuals, the January 2022 count of Common Pochard in Switzerland was the lowest since the early 1970s.

The Stock Dove has seen a positive population trend not only in Switzerland but also in Denmark, Germany and the Czech Republic.

Winners and losers among central European breeding birds

Our landscapes today have largely been shaped by humans. Humans are also having an increasing impact on the climate. Both factors strongly influence the distribution and population trends of breeding birds. The environmental changes vary in intensity between countries, depending on the geographical and political conditions. We therefore expect to see geographical variation in bird population trends as well. Farmland species in former Eastern bloc countries, for example, started to decline massively only after these countries had joined the EU, while the populations of these species in western Europe were already at a much lower level then.

Winners	Losers
Stock Dove	Grey Partridge
Black Woodpecker	Northern Lapwing
Great Spotted Woodpecker	Eurasian Skylark
Common Raven	Icterine Warbler
Carrion/Hooded Crow	Garden Warbler
Eurasian Blue Tit	Willow Warbler
Eurasian Blackcap	Wood Warbler
Common Chiffchaff	Spotted Flycatcher
	Meadow Pipit
	Tree Pipit

Species with a positive/negative trend in Denmark, Germany, the Czech Republic and Switzerland between 1990 and 2016.

Comparing national trends in central Europe

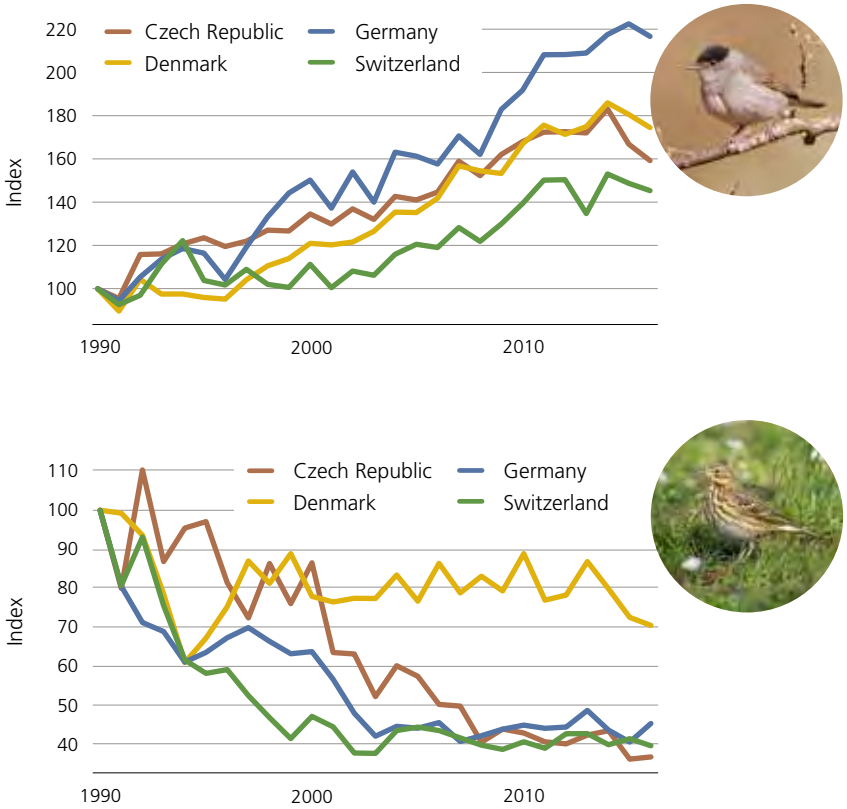
The Swiss Ornithological Institute was involved in a new publication comparing the population trends of breeding birds in Denmark, Germany, the Czech Republic and Switzerland between 1990 and 2016. The study included 109 species, with data from all four countries available for 66 of these. It investigated possible connections between a species' ecological traits and its national and international population trends. The ecological traits examined were habitat preference (woodland vs farmland), degree of specialisation (specialists vs generalists), migration behaviour and temperature preference. The last trait refers to the mean temperature in a species' breeding range, so values will be greater for southern species than for northern or alpine species.

Denmark was found to have the highest proportion of declining species, while Switzerland had the largest share of positive trends. In the Czech Republic and Switzerland in particular, long-distance migrants had significantly poorer trends on average than did short-distance migrants and residents. Trends were more markedly negative in farmland species than in woodland birds; this difference was especially pronounced over the survey period in the current Czech Republic,

a country of the former Eastern bloc. Species with a preference for higher temperature and more generalist species showed more positive trends in all countries. Woodland birds were generally among the winners as well. By contrast, trends were negative across all countries for species which overwinter in sub-Saharan Africa, have a preference for cooler temperature (in the breeding range) and occur in farmland. Eight species showed an increase during the survey period in all four countries, while ten species declined everywhere.

Overall Swiss gains thanks to woodland birds

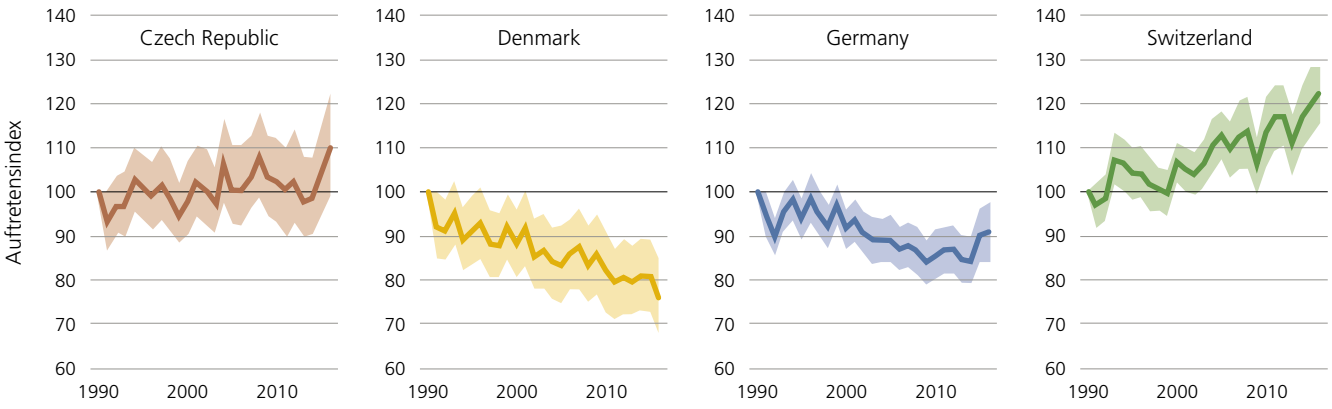
Several reasons explain why Switzerland appears to have done comparatively well. For one, the greatest losses in many farmland species had already occurred here before 1990. Moreover, measures to enhance biodiversity are increasingly being implemented in farmland, so that certain species, such as the Red-backed Shrike, were able to reverse their trend within the study period. Overall, forests have grown older and more abundant in deadwood, and the total area covered by forest in Switzerland has increased.



While Eurasian Blackcaps have increased in the four countries included in the study, the Tree Pipit population has declined.

Reference

Bowler, D., R. L. Richter, D. Eskildsen, J. Kamp, C. M. Moshøj, J. Reif, N. Strebel, S. Trautmann & P. Voříšek (2021): Geographic variation in the population trends of common breeding birds across central Europe. Basic and Applied Ecology 56: 72–84.



Combined relative population trend (median and 95% confidence interval) of 66 species with data from all four countries. The base year is 1990.

Thank you for many years of active support

This report is dedicated to the Swiss Ornithological Institute's volunteers. Many of them have supported our work for decades by contributing opportunistic observations and participating in counts, mapping surveys and special surveys to monitor birds in Switzerland. A report like this one would not be possible without the ongoing efforts of more than 2000 field ornithologists.

The waterbird census is our longest-running monitoring scheme. Without the great commitment of many passionate people braving wind and weather to count birds along lakes and rivers, we would never have gained the knowledge we have today. There are only a handful of counters who have taken part in the countrywide census from its very beginning in 1967 until today. One of these veterans is Walter Gabathuler, responsible for the survey stretch from Rheineck to the mouth of the Alter Rhein on Lake Constance. For more than 60 years, Walter Gabathuler has led birdwatching excursions for the local conservation group and been an enthusiastic participant in the waterbird census; at Lake Constance, the waterbird counts started in winter 1961/62; eight mid-month counts have been conducted from September to April ever since. Countless helpers benefited from the retired secondary school teacher's vast knowledge, as he always carried out the waterbird counts with a team of six to eight people.

Just as important as carefully recording sightings and conducting counts are regional or local compilations and analyses of data. Such syntheses highlight the extensive local expertise of our volunteer ornithologists. In the case of rare breeding species especially, when it comes to, for example, identifying the number of duck families or monitoring colonial species, such reports and tables are extremely helpful and facilitate the production of national data compilations. Kurt Anderegg has been assessing reports with exemplary care for a long time. The former school teacher has been publishing the annual ornithological reports of Rapperswil-Jona since 1981. In 2001, he put together the report «Birdlife in Rapperswil-Jona 1960–2000», filling four large folders, which he has since continued to update. As the one-time editor of the wildlife magazine «Tierwelt» and author of three books, he knows how to write about birds. On top of this, Kurt Anderegg is a conservation pioneer who initiated the creation of the gravel island next to the Rapperswil Seedamm across Lake Zurich. The gravel bar was created to compensate for lost habitat when the wooden walkway was built and has since served as breeding and stopover site for countless waterbirds, waders and gulls.

We are enormously grateful to all our volunteers for their tireless and sometimes decades-long engagement in the field! We thank our local, regional, national and international partners for the effective collaboration, in particular in the breeding bird surveys and waterbird census. We are grateful to the photographers for providing many wonderful photos. And finally, we thank our collaborators at Biolovision S.à.r.l. for their patience and perseverance running ornitho.ch.

About 3500 Little Grebes are counted in Switzerland every January. Their favourite haunts are in shallow water zones, rivers (like the Alter Rhein) and harbour basins.

The Great Black-backed Gull is a rare winter visitor in Switzerland. The bird pictured above likes to visit the gravel bar near Rapperswil SG, where it was seen for the first time in winter 2009/10. In 2021/22, it spent its thirteenth consecutive winter at Lake Zurich.

Authors and copyright

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Front cover: Cuckoo: D. Occhiato; p. 2: Greater Whitethroat, Bearded Reedling, Greenfinch: M. Burkhardt, Linnet: D. Occhiato; p. 3: Red-rumped Swallow: M. Varesvuo, Tufted Duck, Great Spotted Woodpecker: M. Burkhardt; p. 4: Corn Bunting: M. Schäf; p. 5: Black Woodpecker: M. Burkhardt; p. 6: Grande Cariçaie: A. Pfänder; p. 7: Lesser Spotted Woodpecker: M. Varesvuo; p. 8: Military training site Thun: David Külling, armasuisse Real Estate; p. 9: Woodlark: Z. Tunka, Nightingale: M. Burkhardt; p. 10: Bluethroat, Gadwall, Bearded Vulture: M. Burkhardt; p. 11: Tawny Pipit: D. Lorenz, Barred Warbler, Egyptian Goose: M. Burkhardt; p. 12: Grande Cariçaie: SWISS-FLY BORIS BRON, Great Reed-warbler, Willow Warbler: M. Burkhardt; p. 13: Golden Oriole: M. Burkhardt; p. 14: Greenfinch: D. Occhiato, Crag Martin: Raül Aymí; p. 15: Skylark: B. Rüegger, Pied Flycatcher: M. Burkhardt; p. 18: Hirzel 2005: ETH Zurich Library, image archive / photographer: Huber, Roger; Kobi, Hans, Hirzel 2020: Beat Ernst; p. 19: Skylark: M. Varesvuo; p. 20: Red-rumped Swallow: M. Burkhardt; p. 21: Red-throated Pipit: B. Rüegger, Mediterranean Gull: M. Varesvuo, flock of waders: G. Huser; p. 22: Kingfisher: B. Rüegger; p. 25: Black-winged Kite: M. Schäf; p. 26: Northern Pintail: R. Aeschlimann, Green Sandpiper: M. Burkhardt; p. 28: Great White Egret: B. Mate, feather headdress: Jang Langhans, 1912 / public domain; p. 29: Great White Egret: B. Rüegger; p. 31: Pochard: M. Burkhardt; p. 32: Stock Dove: M. Burkhardt; p. 33: Blackcap, Tree Pipit: M. Burkhardt; p. 34: Little Grebe: F. Sigg; p. 35: Great Black-backed Gull: K. Robin. The copyright for the map background (relief maps) is held by the ETH Zurich Institute of Cartography and Geoinformation. Other images: archive of the Swiss Ornithological Institute.

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