Guide (short version)

Names and illustrations of species
The species' Norwegian, English and scientific names are given. The systematic sequence and the English names follow The Bird List 2000 *published by the British Ornithologists' Union (BOU 2000).*

Species text
For most species the presentations consist of text comprising a short introduction *about the distribution of the species, its food, information on* ringing data *and* recovery data, *and also one or more sections on* migration *and other kinds of* movements.

Introduction *describes the national and global distribution of the species, its population trend in Norway, and its food and choice of habitat. Finally the population size and possible changes in the same are described.*

Ringing data *gives a short description of the ringing activity in the period 1914-1999, with emphasis on information not already given in other tables and figures.*

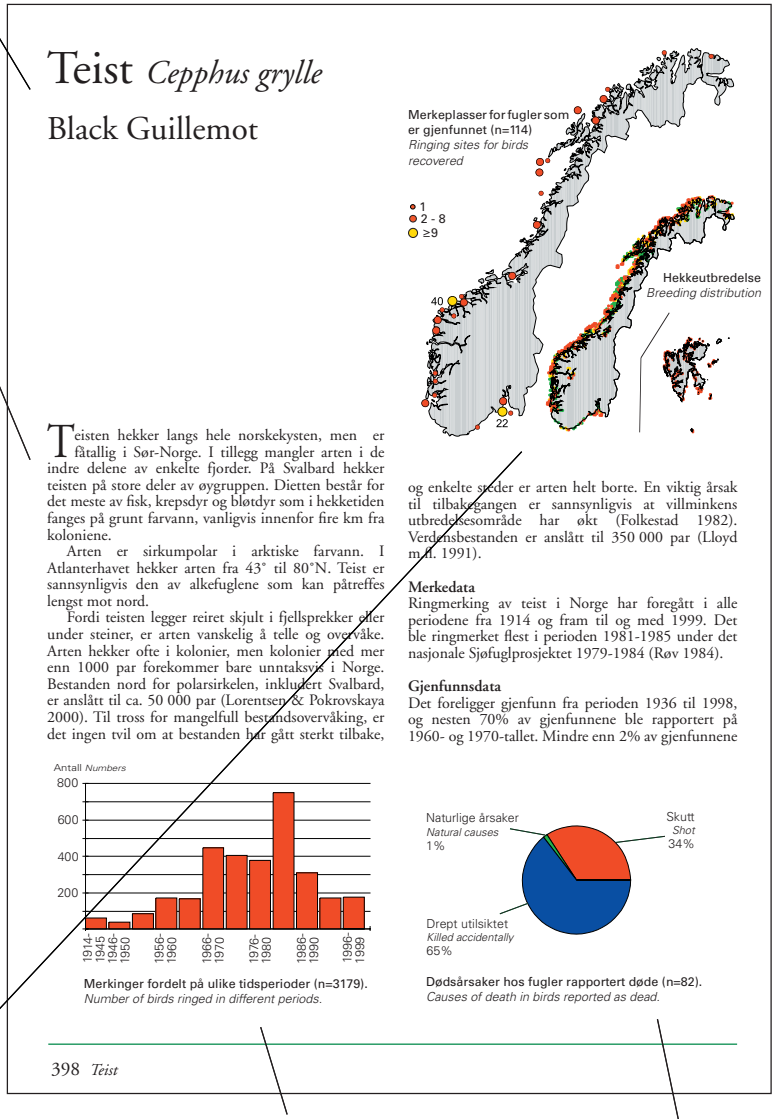
Recovery data *summarizes the distribution of recoveries, nationally and globally. Then follows a description of the most important causes of death registered for the species.*

Migration pattern *based on recovery material for the species is given for the different seasons. To the extent that the material allows, the text describes autumn migration and wintering areas, together with spring migration and summering areas. The text is brief, and is intended to be a supplement to the maps and other figures. The figures and the text are related, but normally there is no reference to the figures and maps in the text.*

Ringing and breeding maps
For each species two maps of Norway are shown to the right of the species illustration. For some arctic species the maps of ringing and breeding are also shown for Svalbard. The maps show the ringing sites for recoveries (1:15 000) and for breeding distribution in Norway and Svalbard (1:25 000).

The ringing data are aggregated into squares of 40x40 km, and the total numbers in each square are indicated by three different circular symbols of increasing size. The intervals are adjusted in relation to the number of ringing instances for the species. The two smallest circles are red, and the intervals are shown in the explanation of the symbols. The largest circle is yellow, and for these the number of birds ringed within the square is always shown next to the circle.

The map showing breeding distribution is always placed to the right of the ringing map. The colour codes used are red for confirmed breeding, *yellow for* probable breeding *and green for* possible breeding.



Ringing activity and causes of death
For ringing data *a histogram is shown indicating ringing activity in the period 1914-1999. This is divided into five-year periods, except for the first period, 1914-1945.*

Reported causes of death are presented as a pie-chart. Only birds reported dead are included, while recoveries where the cause of death is unknown are omitted from the selection. The causes of death are divided into four groups: birds shot *(red colour),* killed but not shot *(yellow),* killed accidentally *(blue) and* natural causes *(green). This division is in accordance with the coding system defined for the Norwegian ringing data format.*

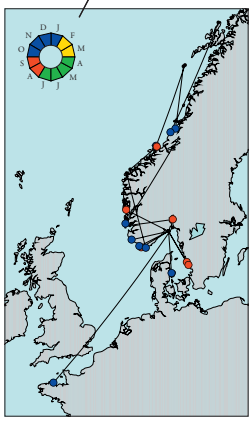
Recovery maps

The distribution of the recoveries is shown as elemental recoveries, recovery areas *(kernel polygons),* mean positions *and* county/country distribution. *This division is always in whole months, and is shown as a* season wheel. *The breeding period for the species is shown in green, the autumn period in red, the winter period in blue and the spring period in yellow. If the recovery has a less exact date than 14 days, it is indicated by a white circle. In addition to the recovery positions there may be shown lines to the ringing sites, which can also be marked with black dots.*

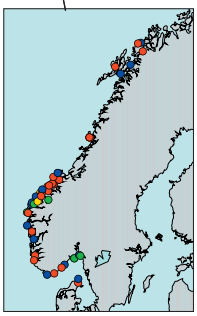
Recoveries can also be shown as recovery areas *(kernel polygons). These give a density distribution of the recoveries. Two types of polygons are shown: red shading shows the areas where there is a 50% probability of finding a given recovery, similarly blue shading shows 95% probability.*

Mean positions. *There must be at least three recoveries within a period in order to compute a mean position. The mean positions are computed only on the basis of recoveries that have an exactness of date of two weeks or better.*

County/country distribution *shows the number of recoveries reported from Norwegian counties and from abroad. The maps also show the percentages of birds that, for example, were shot within the county/country. The scale is in four intervals: 1-25%, 26-50%, 51-75% and 76-100%.*



Gjenfunn med linjer fra merkeplassene rapportert i første leveår mer enn 200 km fra merkeplassene (n=15). *Recoveries with traces from the ringing sites reported in the first year of life more than 200 km away from the ringing sites.*



Gjenfunn rapportert i første leveår nærmere enn 200 km fra merkeplassene (n=51). *Recoveries reported in the first year of life less than 200 km from the ringing sites.*

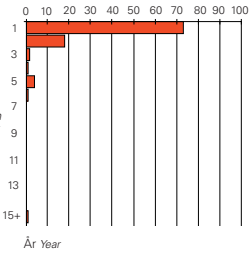
er rapportert om ringmerkede teist som er skutt siden 1981.

ble rapportert på 1990-tallet. Merkeplassene med flest gjenfunn er øygruppene Bølene i Vestfold og Grasøyane i Møre og Romsdal, med henholdsvis 18% og 32% av gjenfunnene.

Bare 11 individer (10%) er gjenfunnet utenfor Norge, henholdsvis i Danmark (6), Sverige (4) og Frankrike (1). I Norge er flest gjenfunnet i Møre og Romsdal (37%) og Nordland (12%).

Den viktigste dødsårsaken for fuglene som er rapportert døde er drukning i fiskegarn (50 fugler [61%]). Bifangsten har forekommet langs hele kysten, og også gjenfunn fra Sverige (3) og Danmark (1) er rapportert som garndrepte. En relativt stor andel (34%) av fuglene er rapportert skutt, men denne dødsårsaken er sannsynligvis ikke lenger viktig, ettersom det ikke

Prosent *Percent*



Fordeling på leveår (per 1. juli) for fugler merket som unger og 1K rapportert døde (n=103). *Age distribution (as of 1 July) of recoveries of birds ringed as young and 1 cy reported as dead.*

Gjenfunnsfakta ***Recovery facts*:**

Totaler ***Totals*:**

Antall ringmerket *Number ringed*	3179
Gjenfunn, alle *Recoveries, all*	121
Gjenfunn, brukt *Recoveries, used*	114
Gjenfunnede individer *Recovered individuals*	114 (3,6%)
Gjenfunn merket som reirunger *Recoveries ringed as nestlings*	113
Kontrollert levende *Controlled live*	1 (0,9%)
Rapportert døde *Reported as dead*	113 (99,1%)
Funn i Norge *Recoveries in Norway*	103 (90,4%)
Funn i utlandet *Recoveries abroad*	11 (9,7%)

Gjennomsnitt ***Means*:**

Tid, alle *Interval, all*	1 år 1 mnd (n=81)
Tid, reirunger *Interval, nestlings*	1 år 0 mnd (n=80)
Avstand, alle *Distance, all*	167 km (n=81)
Avstand, reirunger *Distance, nestlings*	168 km (n=80)

Ekstremer ***Extremes*:**

Høyeste alder *Oldest bird*	15 år 11 mnd
Høyeste hastighet *Highest speed*	25 km/d
Lengste avstand *Longest distance*	1456 km
Sørligste gjenfunn *Southernmost recovery*	Frankrike (48°46'N) *France (48°46'N)*

Facts-capsule

The facts-capsule consists of three main groups: **totals**, **means** *and* **extremes.**

Totals: Number ringed *comprises all ringed birds.* Recoveries all *shows the total number of recoveries in the material, while* recoveries used *is the number of recoveries in the presentation. The number of* recovered individuals *is the number of different individuals that have given recoveries. In addition a recovery percentage is shown. Where relevant the number of recoveries of birds ringed as nestlings,* recoveries ringed as nestlings, *is given. Under* controlled live *and* reported as dead *we find in these two groups the total number of recoveries in the material. We also find the distribution of the whole material (the total number of recoveries) in* recoveries in Norway, recoveries at sea, *and* recoveries abroad.

Means *shows the mean time and distance from ringing to recovery in number of years/months and kilometres. Mean time from ringing to recovery and distance are shown for all recoveries included in the selection (*interval, all, distance, all*), also distributed among nestlings, 1 cy birds and older if the material allows.*

Extremes: Oldest bird *is found among recoveries of dead birds with date accuracy ± two weeks or better (i.e. within one month).* Longest distance *specifies the bird found furthest from the ringing site. In searching for* southernmost, northernmost, easternmost *or* westernmost recovery, *a check is made to determine whether transport could have had some effect.*

Age distribution

The figure shows the time elapsed from ringing to recovery of birds reported dead and ringed as nestlings or juveniles (1cy). The first year of life is defined as time from hatching to July 1st the next year, the second year from July 1st to the following year, and so on. The selection does not include recoveries where the date is less exact than three months. Recoveries where the circumstances of the finding are entirely unknown, or where the bird was not newly dead, are also excluded. The figure is divided into 15 year-groups, the last of these including all birds in their 15th year of life or older. The figure gives a good indication of survival in the different species, and how old they can get.