# Geography and climate

#### 1. Geography

#### The long Danish coastline

Denmark is a small country, compared to its closest neighbours. Sweden is ten times and Germany is eight times larger than Denmark, which has an area of  $43,560~\rm km^2$ . On the other hand, Denmark's coastline is extraordinarily long for a country of this size. Denmark stretches along a coast of  $7,314~\rm km$ , which is longer than the Chinese Wall. It corresponds to almost one and a half metre of coast per inhabitant.

One characteristic of Denmark's geography are the many islands, a total of 407. The largest islands are, by order of mention, Zealand, Vendsyssel-Thy, Lolland and Bornholm. Jutland (including Vendsyssel-Thy) account for 70 per cent of Denmark's total area. Two-thirds of Denmark's area is agricultural land.

In addition to Denmark, the Kingdom of Denmark includes the self-governing areas of Greenland and the Faroe Islands. The ice-free part of Greenland is almost ten times larger than Denmark, while the Faroe Islands are thirty times smaller than Denmark.

Figure 1

### Distribution of Denmark and the Kingdom of Denmark by area



### Denmark's nature is characterized by agriculture and forests

For thousands of years, Denmark has been an agricultural country, and this has largely characterized Danish landscapes. Consequently, 66 per cent of the landscape consists of man-made agricultural areas. However, forests are also evident in the landscape in the form of different types of forests, such as deciduous forest and coniferous forest, and 12 per cent of Denmark is covered by forests. However, more recent accounts from the Danish Forest and Nature Agency indicate that forests cover almost 14 per cent of Denmark. These accounts have been made on the basis of, among other things, aerial photos. Rold Forest and Grib Forest are the largest forests, covering 133 km², which is 2.5 per cent of the 5,294 km² covered by all the forests (source: National Survey and Cadastre).

# Man-made infrastructure and buildings characterize the landscape

Cities, roads, railroads, bridges and other types of man-made surfaces cover a total of 10 per cent of Denmark's area, corresponding to three times the area of the Faroe Islands – or 56 per cent of Zealand. Urban centres, such as residential neighbourhoods and industrial districts, dominate and account for three-fourths of the man-made area.

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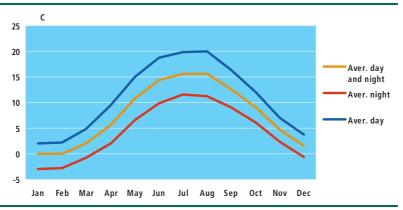
### 2. Climate

### It rains or snows every third day

The Danish weather is known for being variable. It is a fact that it rains or snows every third day in Denmark, since a year has an average of 121 days of precipitation.

Figure 2

### Temperatures in Denmark (average 1961-1990)



Source: Danish Meteorological Institute.

In a year, the average temperature varies from 0  $^{\circ}$ C in January to 20  $^{\circ}$ C in August. Great variations occur in relation to the average. The coldest day in more than one hundred years was a January day in 1982 with temperatures of -31  $^{\circ}$ C, and the warmest day was an August day in 1975 with temperatures of 36  $^{\circ}$ C.

#### Snow seven days a month during the wintertime

Denmark has mild winters without large amounts of snow, but with much rain. On average, it snows seven days every month in December, January and February. This figures decreases to five days of snow in March, and April has an average of two days of snow. It has been snowing in May a few times, but seldom for more than two hours over the entire month.

# "... and it will be overcast again today"

Overcast days and many clouds in the sky are natural in Danes' everyday life. The clouds cover an average of 65 per cent of the sky in a year, but the summer is the least cloudy season with an average of 57 per cent cloudiness.

### Not many days of sunshine in a year

Denmark is a country where the total hours of sunshine a year make gives occasion to enjoy the sun while it is out. There is an average of four hours of sunshine a day, naturally primarily during the spring and summertime. From May to August, there is more than five hours of sunshine a day. However, 2005 was different with one-fourth more hours of sunshine during the entire year.

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	Land and inland water area km²	Population 1st. January	Density of population per km <sup>2</sup>	Number Inland of islands	l water area 1959 km²	Coastline 1959 km
Denmark	43 098.31	5 427 459	125.9	407	700	7 314
Regions						
Zealand	7 450.59	2 289 321	307.3	99	184	1 735
Lolland-Falster	1 795.34	112 418	62.6	45	24	587
Bornholm <sup>1</sup>	588.55	43 337	73.6	9	3	141
Funen	3 485.84	478 347	137.2	100	26	1 130
The Islands, total	13 320.32	2 923 423	219.5	252	237	3 593
Jutland	29 777.99	2 504 036	84.1	154	463	3 721
Counties						
Copenhagen Municipality	88.25	501 158	5 678.8	2	3	92
Frederiksberg Municipality	8.77	91 855	10 473.8	•	0	•
Copenhagen County	528.26	618 529	1 170.9	3	15	121
Frederiksborg County	1 347.44	378 686	281.0	14	80	248
Roskilde County	891.42	241 523	270.9	18	7	154
West Zealand County	2 983.77	307 207	103.0	28	66	608
Storstrøm County	3 398.02	262 781	77.3	77	36	1 099
Bornholm Municipality <sup>1</sup>	588.55	43 337	73.6	9	3	141
Funen County	3 485.84	478 347	137.2	100	27	1 130
South Jutland County	3 939.12	252 433	64.1	14	119	567 <sup>2</sup>
Ribe County	3 131.66	224 261	71.6	4	23	207
Vejle County	2 996.64	360 921	120.4	10	26	264
Ringkøbing County	4 853.95	275 065	56.7	23	80	598
Århus County	4 560.73	661 370	145.0	40	77	635
Viborg County	4 122.51	234 896	57.0	15	90	646
North Jutland County	6 173.38	495 090	80.2	46	48	804
Faroe Islands	1 398.85	48 223	34.5	<b>17</b> <sup>3</sup>		1 1174
Greenland	410 449.00 <sup>5</sup>	<b>56 969</b> <sup>6</sup>	0.1			

Note 1. The most southern point in Denmark is Gedserodde on Falster, 11°58′15″ east, 54°33′35″ north, the most northerly point is near Skagen 10°36′11″ east, 57°45′07″ north, the most westerly point is Blåvandshuk 08°04′22″ east, 55°33′36″ north, and the most easterly point is Christiansø (Østerskær), 15°11′55″ east, 55°19′17″ north. European Datum, 1950.

Note 2. The basic measurements were carried out by the Geodætisk Institut between 1953-1959 on the topographical maps current at that time (1:20,000), cf. Danmarks Areal (Statistiske Meddelelser 1968:4). Areas were transferred by Statistics Denmark in planimetric measurements to the current 4 cm maps (1:25,000).

Note 3. Areas in column 1 include all areas within the contours of the country. Fjords and inlets which have free passage to the sea (e.g. Ringkøbing fjord), are not included in the figures.

Note 4. The figures in columns 5 and 6 are from the 1959 planimetric measurements and they have not been transferred to more modern maps. In column 5, 4 lakes and 2 closed fjords, each of over 100 hectares (10 km²) are included: these are Arresø, Esrumsø, Mossø, Tissø, Saltbæk Vig and Stadil Fjord. There are 53 named islands in the Danish lakes with a total area of 1.97 km². The coastline is divided into counties according to the local authority allocation of 1st. April 1970.

Note 5. Named lakes, water courses, etc. in parishes which were divided into municipalities, each in its own county, on 1 April 1970 are included in that county with the largest part of the parish.

<sup>&</sup>lt;sup>1</sup> Including Christianso. <sup>2</sup> The border with Germany was measured as 67.7 km. In length. <sup>3</sup> Inhabited islands. <sup>4</sup> Measured in 1955. <sup>5</sup> Only the part of Greenland free of ice is included. The total area of Greenland is 2,166,086 km², of which 81 pct. is covered by inland ice. <sup>6</sup> 1st. January 2005.

Source: National Survey and Cadastra.

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	Munici- palities	Parishes	Customs and tax	Judicial districts -	Consti	tuencies	1
	panties		regions	uistricts =	Counties and large constituencies		Consti- tuencies
Total	270	2 122	27	82	17		103
The Islands	129	891	14	40	10		58
Copenhagen Municipality	1	69	1	1	3	ſ	16
Frederiksberg Municipality	1	10	'	1	3	ſ	3
Copenhagen County	18	70	3 <sup>2</sup>	10	1		9
Frederiksborg County	19	78	2	5	1		4
Roskilde County	11	68	1 <sup>3</sup>	2	1		3
West Zealand County	23	167	2 <sup>3</sup>	7	1		6
Storstrøm County	24	182	2 <sup>3</sup>	6	1		6
Bornholm Municipality	14	22	1	1	1		2
Funen County	31	225	2	7	1		9
Jutland	141	1 231	13	42	7		45
South Jutland County	23	116	2	6	1		7
Ribe County	14	88	1	5 <sup>5</sup>	1		4
Vejle County	16	136	16,7	5 <sup>5</sup>	1		6
Ringkøbing County	18	143	2 <sup>7</sup>	6	1		4
Århus County	26	285	3	6	1		10
Viborg County	17	223	28	5 <sup>10</sup>			5
North Jutland County	27	240	2 <sup>9</sup>	9 <sup>10</sup>	1		9

Note 1. Judicial system: There are two High-Court districts and 15 judicial districts. The East High-Court District covers the Islands, which are divided into 9 judicial districts. The West High-Court District covers Jutland and is divided into 6 judicial districts.

Note 3. Danish Working Environment Service: There are 14 Inspection Districts: Copenhagen and Frederiksberg municipalities comprise 1 district, Roskilde and Bornholm county comprise 1 district, while the remaining part of Denmark's 12 counties each comprises 1 district.

Note 4. The Public Employment Office: There are 14 public employment offices: Copenhagen and Frederiksberg municipalities and Copenhagen County, which has 1 office, while the remaining part of Denmark's 13 counties, each has 1 office.

Note 5. There are 8 Customs and Tax Regions 4 on the Islands and 4 in Jutland.

Note 6. Assessment districts and valuation districts now belong under the Central Tax Administration.

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Note 2. With regard to ecclesiastical matters, there are 10 parishes (111 rural deans and 1,338 reverends).

<sup>&</sup>lt;sup>1</sup> In accordance with Act no. 704 of 27 June 2004 regarding election to the Folketing. <sup>2</sup> Copenhagen County is part of Tax Region Copenhagen, South Zealand and North Zealand-Bornholm. <sup>3</sup> Roskilde County, West Zealand and Storstrøms Country belong to Tax Region South Zealand. <sup>4</sup> With the exception of Christiansø, which is not comprised by the division of municipalities; the island is administered by the Ministry of Defence. <sup>5</sup> Part of judicial district 51, Grindsted, is located in Vejle County. <sup>6</sup> Brædstrup, Gedved, Hedensted, Horsens, Juelsminde and Tørring-Uldum municipalities, Vejle County, belong to Tax Region East Jytland. <sup>7</sup> Nørres Snede Municipalities, Vejle County belong to Tax Region West Jutland. <sup>8</sup> Viborg County is part of Tax Region North Jutland and East Jutland. <sup>9</sup> Farsø, Hobro, Nørager and Aars municipalities, North Jutland County, are part of Tax Region East Jutland, the remaining part belongs to Tax Region North Jutland. <sup>10</sup> Part of Judicial District 78, Hobro, and part of Police District 52, Hobro, are located in Viborg County.

Table 3 Area and population. Regions and inhabited islands

Muni	-	Area	Popul	ation	Muni	-	Area	Popul	ation
cipa- lity		in ha	1 January	1 January	cipa- lity		in ha	1 January	1 January
code		2006	2005	2006	code		2006	2005	2006
	Whole country	4 309 831	5 411 405	5 427 459		Funen and its islands	348 584	476 580	478 34
	Zealand and				431	Funen Avernakø	298 456 586	445 061 113	447 060 110
	its islands	745 059	2 281 142	2 289 321	443	Birkholm	92	7	10
_	Zealand	703 132	2 108 877	2 115 317	431	Bjørnø	150	43	39
331	Agersø	684	238	2 113 317	421	Bågø	623	36	34
-	Amager	9 629	158 224	160 064	479	Drejø	426	74	69
365	Bogø	1 307	1 071	1 071	445	Fænø	394	1	2
331	Egholm	99	2	2	479	Hiortø	90	13	13
373	Enø	340	280	284	-	Langeland	28 384	13 995	13 881
229	Eskilsø	139	3	3	431	Lyø	605	138	130
365	Farø	93	4	4	487	Siø	131	22	21
373	Gavnø	575	29	28	479	Skarø	197	37	36
331	Glænø	559	56	63	431	Store Svelmø	27	4	C
361	Langø	127	5	5	475	Strynø	488	206	218
365	Lindholm	7	4	4	479	Thurø	753	3 701	3 699
397	Masnedø	168	156	153	447	Tornø	21	3	3
365	Møn	21 775	10 547	10 448	479	Tåsinge	6 979	6 192	6 155
301	Nekselø	223	24	26	423	Æbelø	232	2	2
365	Nyord	499	50	45	492	Ærø	8 807	6 932	6 863
331	Omø	452	190	187		81 named islands	1 143	•	•
315	Orø	1 502	948	937					
185	Saltholm	1 599	4	5		Jutland	2 977 799	2 497 236	2 504 036
301	Sejerø	1 237	406	403	-	Jutland peninsular	2 387 430	2 105 542	2 113 555
101	Slotsholmen	21	21	24	-	Vendsyssel-Thy	468 573	304 701	303 606
361	Tærø	175	3	3	773	Agerø	385	38	40
	77 named islands	717	•	•	727	Alrø	751	162	161
					-	Als	31 222	51 718	51 806
					707	Anholt	2 237	161	167
	Lolland, Falster				545	Barsø	266	25	26
	and their islands	179 534	113 002	112 418	851	Egholm	600	50	48
-	Lolland	124 286	68 751	68 224	615	Endelave	1 308	171	177
-	Falster	51 376	43 405	43 364	563	Fanø	5 578	3 151	3 143
363	Askø	282	55	56	783	Fur	2 229	904	912
379	Fejø	1 600	611	608	813	Hirsholm	17	6	6
379	Femø	1 138	154	144	619	Hjarnø	321	108	103
363	Lilleø	86	14	11	675	Jegindø	791	507	517
379	Skalø	106	9	9	529	Kalvø	18	8	8
379	Vejlø	37	1	0	827	Livø	331	8	10
379	Vejrø	157	2	2	825	Læsø	10 122	2 145	2 091
	36 named islands	465	•	•	571	Mandø	763	59	56
					773	Mors	36 331	22 441	22 293
	Bornholm and				531 741	Rømø Samsø	12 886 11 206	697 4 125	677 4 124
	its islands	58 855	43 445	43 337	503	Samsø Store Okseø			4 124
400	Bornholm	58 815	43 445 43 347	<b>43 337</b> 43 245	727	Tunø	11 352	2 112	115
411	Christiansø <sup>1</sup>	25	43 34/	43 243	671	Venø	646	211	211
411	Frederiksø <sup>1</sup>	4	} 98	92	609	Veriø	58	1	1
411	6 named islands	11	•	•	515	Årø	566	183	180
411	o nameu isianus	11	•	•	داد	128 named islands	2 801		
						120 Hallieu Islanus	2 801	•	•

Note. Als includes the following municipalities: 501, 523, 535 plus 24,857 people in Sønderborg Municipality. - Amager includes the following habitants municipalities: 155 and 185 (excl. Saltholm) plus 107,207 people in Copenhagen Municipality. - Falster includes the following municipalities: 369 (excl. Toreby parish), 375, 391 and 395. - Langeland includes the following municipalities: 475 (excl. the island of Stryno), 481 and 487 (excl. the island of Sio). - Lolland includes the following municipalities: 355, 359, 363 (excl. the islands of Asko and Lilleo), Toreby parish in Nykobing F. Municipality, 367, 371, 379 (excl. the islands of Fejo, Femo, Skalo, Vejlo and Vejro, 381, 383 and 387. - Vendsyssel-Thy includes the following municipalities: 675 (excl. the island of Jegindo), 765, 785, 787, 803, 805, 807, 811, 813 (excl. Hirsholm), 817, 819, 821, 829, 835, 839, 841, 847, 849 plus 37,871 people in Aalborg Municipality, Aggersborg parish 495 people in Logstor Municipality. In total 328 named islands are without inhabitants.

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**Environment and energy** 

 $<sup>^{\</sup>rm 1}$  Not included in the division of municipalities, administered by the Ministry of Defence.

<sup>☐</sup> For further information visit www.statbank.dk/02

	Km <sup>2</sup>	Per cent
Total area	43 560.76	100.00
Artificial surfaces	4 246.46	9.75
Urban fabric, industrial and commercial units <sup>2</sup>	3 154.63	7.24
Motorway	43.96	0.10
Expressway	9.10	0.02
Road broader than 6 metre	269.02	0.62
Road 3 – 6 metre	551.58	1.27
Railway	58.22	0.13
Bridge	0.02	0.00
Embankment	2.64	0.01
Runway	3.31	0.01
Mineral extraction sites	19.94	0.05
Technically sites	17.46	0.04
Cemetery	6.96	0.02
Sport facilities	52.18	0.12
Leisure facilities	57.44	0.13
Agricultural areas	28 897.85	66.34
Arable land	28 615.01	65.69
Market garden	33.87	0.08
Pastures	155.18	0.36
Pastures in urban areas	93.72	0.22
Land principally occupied by agriculture, with significant areas of natural vegetation	0.07	0.00
Forests and semi-natural areas	6 788.32	15.58
Forest	1 829.48	4.20
Broad-leaved forest	1 309.40	3.01
Coniferous forest	2 147.34	4.93
Mixed forest	7.98	0.02
Natural grassland	391.92	0.90
Moors and heathland	981.76	2.25
Beaches, dunes and sand plains	51.21	0.12
Sparsely vegetated areas	69.23	0.16
Wetlands	2 274.89	5.22
Meadows	808.89	1.86
Inland wetslands	205.66	0.47
Peatbogs	875.60	2.01
Salt marshes	384.74	0.88
Water bodies	670.59	1.54
Lake	616.49	1.42
Stream width 8- 12 metre	49.42	0.11
Reeds	0.34	0.00
Fish farm	4.34	0.01
Unclassified	682.65	1.57

Note. The Primary data are *arealanvendelseskortet; Areal Information System,* (The Ministry of Environment). Further information can be obtained on www.dmu.dk. The figures are a revision (not an update) of the collected data. The National Environmental Research Institute has done the revision in 2001. The classification is based on the tree digit *CORINE land cover nomenclature,* as a 4'th. number is added for national purpose.

Source: National Environmental Research Institute.

<sup>&</sup>lt;sup>1</sup> The figures are based on different primary data covering the period from the end of the 1980's to the middle of the 1990's. <sup>2</sup> Include city center, human locality area with low buildings, human locality area with high buildings, Built-up area in rural areas and industrial area. Roads are not included.

Table 5Denmark's largest lakes

Lake's name	Location	1980-89 19	99-2002	Lake's name	Location	1980-89 199	99-2002
		km <sup>2</sup>				km <sup>2</sup> -	
Arresø	Zealand	39.5	39.5	Søndersø	Lolland	8.5	8.4
Esrum Lake	Zealand	17.4	17.4	Tystrup Lake	Zealand		6.7
Stadil Fjord <sup>1</sup>	West Jutland	18.5	17.3	Tømmerby Fjord	North Jutland		6.0
Mossø	East Jutland	16.6	16.6	Vejlen/Ulvedyb	North Jutland		5.9
Saltbæk Vig <sup>1</sup>	Zealand	15.6	16.1	Julsø	East Jutland		5.8
Tissø	Zealand	12.7	12.7	Tange Lake	West Jutland	5.5	5.5
Furesø	Zealand	9.3	9.3	Lund Fjord	North Jutland	5.4	5.1
Skanderborg Lake	East Jutland	8.0	8.6	,			

Note. 1980–89: Areas are calculated on the basis of the latest edition of the Geodætisk Institut's 4 cm maps up to 1988–89. The measurement basis spans from revised older maps, where the degree of revision is unknown, to modern photogrametric maps. Named lakes are lakes which are named on maps.

Source: National Survey and Cadastre.

Table 6

## Meteorological conditions. Temperature and degree-days

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	All year
Maximum temperature <sup>1</sup> 1874-2005 Temp. Measured during the years 2005	12.4 <i>2005</i> 12.4	15.8 <i>1990</i> 9.6	22.2 <i>1990</i> 15.6	28.6 <i>1993</i> 21.1	32.8 <i>1892</i> 30.7	35.5 <i>1947</i> 29.2	35.3 <i>1941</i> 30.8	36.4 <i>1975</i> 28.0	32.3 <i>1906</i> 27.3	24.1 <i>1978</i> 20.7	18.5 <i>1968</i> 16.7	14.5 <i>1953</i> 10.7	36.4 <i>1975</i> 30.8
Average daily temperature <sup>2</sup> Normal (1961-1990) 2005	2.0 5.7	2.2 2.5	4.9 4.7	9.6 11.7	15.0 14.8	18.7 17.9	19.8 21.2	20.0 19.3	16.4 18.5	12.1 14.8	7.0 8.6	3.7 4.6	10.9 12.0
Mean temperature Normal (1961-1990) 2005	0.0 3.7	0.0 0.3	2.1 1.5	5.7 7.6	10.8 10.8	14.3 14.1	15.6 17.3	15.7 15.5	12.7 14.5	9.1 11.1	4.7 6.3	1.6 2.7	7.7 8.8
Average nightly temperature <sup>1</sup> Normal (1961-1990) 2005	-2.9 1.5	-2.8 -2.1	-0.8 -2.0	2.1 3.8	6.5 7.0	9.9 10.3	11.5 13.7	11.3 11.9	9.1 10.4	6.1 7.5	2.3 3.7	-0.7 0.3	4.3 5.5
Minimum temperature <sup>2</sup> 1874-2005 Temp. Measured during the years 2005	-31.2 <i>1982</i> -10.6	-29.0 <i>1942</i> -13.3	-27.0 <i>1888</i> -20.2	-19.0 <i>1922</i> -4.9	-8.0 <i>1900</i> -1.6	-3.5 <i>1936</i> 0.4	-0.9 <i>1903</i> 7.1	-2.0 <i>1885</i> 4.1	-5.6 <i>1886</i> -2.2	-11.9 <i>1880</i> -2.8	-21.3 <i>1973</i> -7.3	-25.6 <i>1981</i> -9.0	-31.2 <i>1982</i> -20.2
<b>Degree-days</b> Normal (1971-1990) 2005	516 410	473 466	452 479	339 282	186 193	 (96)	(23)	 (55)	136 92	251 181	361 321	461 442	3 175 2 856

Note. Daily measurements at a number of stations throughout the country - as a rule 30 stations - have been used as the basis for the monthly national averages in the table. Annual values may take account of decimals which are not included in the monthly averages. Normals are averages for a number of years, as a rule 30, and they state the expected figures for a day in January, February, etc.

Source: Danish Meteorological Institute.

<sup>&</sup>lt;sup>1</sup> Area of brackish water.

<sup>&</sup>lt;sup>1</sup> A maximum/minimum thermometer registers the *highest/lowest temperature* in a day from all the about 60 stations. Absolute maximum/minimum in the years 1874-2005 are found by extracting the highest/lowest temperature from the about 60 stationer (approx. 100 before 1960). Measured during the most recent year the temperature occurred. <sup>2</sup> The average day temperature/hight temperature is calculated from the highest/lowest daily temperatures at 30 stations. *Mean temperature* is calculated from 3 or 8 daily observations. *Degree days* are used as a measurement for heating needs in the heating season (1 September – 31 May). Degree days in the summer period are in brackets. This is because degree days only very seldom are used during the summer period and for the same reason no normals are calculated for this period. Degree days are shade-temperature days and they are stated as averages for the whole country. The degree-days figure is the sum of the degree days for individual months. The size of the degree-days figure is converted to a percentage of the normal to give consumption in the individual heating season.

 Table 7
 Meteorological conditions. Precipitation, sunshine hours, etc. 2005

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year total
Precipitation							— mm —						
Normal (1961-1990)	57	38	46	41	48	55	66	67	73	76	79	68	712
All Denmark	64	44	43	30	61	53	94	54	29	57	71	49	647
Cph Municipality,													
Frb.Municipality, Cph.		40	2.0	4.0			00	20			2.6		
County, Fr.borg County, and	47	42	36	10	54	52	88	38	14	55	36	51	523
Roskilde County													
West Zealand County	35	40	32	17	45	55	67	29	18	49	39	39	465
Storstrøm County	38	51	40	16	42	54	86	45	17	44	33	59	525
Bornholm Municipality	56	68	58	4	44	24	62	72	39	31	42	52	552
Funen County	54	44	34	27	40	57	108	40	23	60	49	51	587
South Jutland County	67	51	55	45	68	55	111	62	30	71	70	57	742
Ribe County	72	48	54	45	77	46	119	69	35	72	103	60	800
Veile County	75	54	43	44	74	49	121	41	21	60	68	55	705
Ringkøbing County	86	38	46	34	66	47	83	70	48	59	114	42	733
Aarhus County	59	42	35	26	60	51	96	44	28	56	60	45	602
Viborg County	79	38	40	26	64	49	84	53	30	53	95	38	649
North Jutland County	63	35	36	21	63	65	79	61	37	48	76	41	625
,							per cent						
							- per cent						
Relative humidity, all Denn													
Normal (1961-1990)	91	90	87	80	75	77	79	79	83	87	89	90	84
2005	86	86	83	75	79	78	80	81	81	86	88	89	83
Cloud cover, all													
Denmark <sup>2</sup>													
Normal (1961-1990)	76	72	68	61	57	58	59	55	60	67	70	74	65
2005	69	71	61	53	62	61	68	61	55	46	69	73	62
							— hours —						
Bright sunshine, all													
Denmark <sup>3</sup>													
Normal (1961-1990)	43	69	110	162	209	209	196	186	128	87	54	43	1 495
2005	73	86	178	219	213	243	190	181	181	162	64	56	1 846
2003			.,,	2.5	2.5	2.5					٠.	30	
							— НРа —						
Mean air pressure (sea leve													
Aalborg	1 008	1 018	1 016	1 015	1 013	1 015	1 012	1 013	1 017	1 019	1 011	1 013	1 014
Copenhagen Airport	1 011	1 017	1 016	1 016	1 014	1 016	1 012	1 014	1 018	1 021	1 013	1 013	1 015
							-m/sec-						
Frequently winddirection <sup>4</sup>													
Normal (1961-1990)	V19	Ø18	V22	V20	V20	V29	V35	V28	V28	V22	V22	V23	V24
2005	SV30	NØ25	Ø26	Ø28	V33	V23	V33	V26	SV20	SØ36	SV29	V23	V24 V22
2003	3 4 3 0	MOZJ	2020	WZ0	۷ ع ع	V 3 Z	V 3 Z	٥٥٧	3470	טכעכ	3423	٧∠∠	٧ZZ
Mean wind force <sup>5</sup>													
Normal (1961-1990)	7	6	6	6	5	5	5	5	6	6	7	7	6
2005	7	6	5	5	5	5	4	5	4	5	5	6	5
2003	,	J	,	,	J	,	7	,	7	J	,	3	J

Note. *Precipitation* is stated as the height the surface of water would rise if it could not run away or evaporate. The figures stated are national averages of approximately 100 stations throughout the country. Totals for months and years are calculated taking account of decimals. Account is taken of area for the individual counties. See also note to the table on temperature and degree days. 'All Denmark' does not include Bornholm.

Air pressure is the weight of a column of air with a cross-sectional area of 1 cm<sup>2</sup> which rests on a horizontal plane. It is measured in hPa = hectopascals = millibar.

Source: Danish Meteorological Institute.

Statistical Yearbook 2006

**Environment and energy** 

<sup>&</sup>lt;sup>1</sup> *Humidity* states, in percent, the relationship between the actual water vapour in the air and the amount which would be necessary to saturate the air at the given temperature. <sup>2</sup> *Cloud cover* is the percentage of the sky which is covered by clouds. In 2005 new standards for cloud cover based on 7 measurement stations are calculated. <sup>3</sup> *Sunshine hours* (bright sunshine, i.e. 200 watt pr. m²). DMI now observed the hours of bright sunshine using measurements of global radiation instead of measurements from a traditional Campbell-Stokes sunshine recorder. The new method is without questions more precise than the old one, but implies at the same time that "new" and old hours of sunshine not directly can be compared. Typical values are lower during the summertime and higher during winter compares to the "old" values. <sup>4</sup> *Wind incidence* from 10 coastal stations states the percentage distribution of the daily observations in the 8 wind directions and no wind < *means less than 0.5 %*.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year total
Number of days within a month all Denmark													
Summer days (max. >25°) Normal (1961-1990) 2005	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.2 0.9	1.9 1.4	2.6 4.5	2.3 1.9	0.1 1.1	0.0 0.0	0.0 0.0	0.0 0.0	7.2 9.8
Ice days (max. <0°) Normal (1961-1990) 2005	8.6 1.3	7.5 4.6	2.2 4.0	0.1 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.6 0.0	4.0 1.4	23.0 11.2
Frost days (min. <0°) Normal (1961-1990) 2005	19.0 9.9	19.0 21.5	15.0 18.9	6.6 3.2	0.7 0.1	< 0.0	0.0 0.0	0.0 0.0	0.2 0.3	1.8 1.9	7.3 7.9	15.0 14.3	84.0 78.0
<b>Days with fog</b> Normal (1961-1990) 2005	10.0 5.3	9.1 6.7	8.7 9.1	7.7 4.5	7.0 6.6	7.2 6.1	6.8 7.0	9.0 9.1	8.7 11.6	10.0 17.0	7.7 9.2	8.9 10.1	101.0 102.1
Precipitation days (R <sup>3</sup> 0.1 mm) Normal (1961-1990) 2005	17.0 19.9	13.0 12.9	14.0 12.8	12.0 9.6	12.0 18.2	12.0 10.4	13.0 15.1	13.0 12.0	15.0 9.6	16.0 10.4	18.0 18.7	17.0 20.2	171.0 169.8
Heavy precipitation days (R <sup>3</sup> 10 mm) Normal (1961-1990) 2005	1.1 0.9	0.5 1.1	0.7 0.9	0.7 0.3	1.1 1.1	1.5 1.4	1.8 3.4	1.8 1.7	2.0 0.4	2.2 2.4	2.0 1.8	1.6 0.7	17.0 16.1
<b>Days with snow</b> Normal (1961-1990) 2005	7.7 4.1	6.4 8.4	5.0 5.6	2.0 0.1	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	2.3 2.0	6.2 5.4	30.0 25.6
<b>Windy days in pct.</b> Normal (1961-1990) 2005	15 22	11 8	13 4	8	6 2	5 3	5 2	5 2	9	12 3	15 8	15 8	10 6
<b>Days with thunder</b> Normal (1961-1990) 2005	0.3 0.7	0.1 0.3	0.1 0.0	0.5 0.3	1.8 4.7	2.7 1.9	3.2 5.0	3.0 2.6	1.8 2.0	0.8	0.5 0.0	0.2 0.0	15.0 17.4

Note 1. Summer days are days where the highest temperature is over 25° Celsius. Ice days are days where the highest temperature is under 0° Celsius. Frost days are days where the lowest temperature is under 0° Celsius. Days with fog are days where fog is observed around the station. Precipitation days are days with precipitation of 0.1 mm or more. Heavy precipitation days are days with precipitation of 10 mm or more. Days with snow are days with snowfall of 0.1 mm or more measured after melting. Windy days have wind of more than 10.8 m/sec. Registered at coastal stations. Days with thunder are a national average of thunder days from individual stations. When the number of days is less than 10, a tenth is included.

Note 2: The national monthly average is calculated on the basis of the daily measurements recorded by a number of variously located stations — usually approximately 30 stations. Decimals, which are not included in the monthly average of the table, may have been taken into account when the annual value is calculated. The standard figures are the average figure covering a number of years, usually 30 years, and they indicate the expected figures for, respectively January, February, etc. In 2005 new standard figures for Days with snow, thunder and fog are calculated.

Source: Danish Meteorological Institute.

<sup>&</sup>lt; means less than 0.1 but greater than 0.0.

	Total number of known	Total number of 'lis	sted species'	Species extinct in Denmark <sup>1</sup>	Species req	uiring special prot	ection
1997 - 2005	species				Directly endangered <sup>2</sup>	Vulnerable species <sup>3</sup>	Rare species <sup>4</sup>
		number	per cent		number of	species —	
Total	10 598	3 142	30	343	611	997	1 191
Flora							
Fungi / Lichens	3 950	1 452	37	112	268	453	619
Fungi	3 000	878	29	31	157	248	442
Lichens	950	574	60	81	111	205	177
Vascular plants	1 050	220	21	23	36	66	95
Fauna							
Insects	5 289	1 359	26	190	285	450	434
Ephemeroptera	42	20	48	5	8	4	3
Plecoptera	25	10	40	2	2	3	3
Odonata	50	21	42	4	4	7	6
Pentatomoidea	56	15	27	0	2	7	6
Trichoptera	168	54	32	10	3	12	29
Beetles	3 674	964	26	144	233	328	259
Butterflies	73	36	49	9	8	18	1
Moths	900	141	16	13	12	45	71
Zygaenidae	8	5	63	1	1	3	0
Syrphidae	269	86	32	2	10	21	53
Simuliidae	24	7	29	0	2	2	3
Vertebrates	309	111	36	18	22	28	43
Freshwater fish	38	15	39	2	5	1	7
Amphibians	14	5	36	0	1	3	1
Reptiles	7	2	29	2	0	0	0
Birds	200	74	37	14	15	14	31
Mammals	50	15	30	0	1	10	4

Note. Definitions of categories are identical to those which are used in the 'red lists'. These are national lists of the status of endangered animal and plant species. National Environmental Research Institute is working with a revision of the red lists in 2005.

Source: National Forest and Nature Agency.

<sup>&</sup>lt;sup>1</sup> Species which are regarded as extinct in Denmark after 1850. <sup>2</sup> Species which are regarded as in danger of extinction in Denmark in the near future if the negative factors which are currently affecting them continue. <sup>3</sup> Species which are expected to be directly endangered in Denmark if the negative factors which are currently affecting them continue. <sup>4</sup> Species which are so few in number that they are particularly sensitive to random man-made or natural fluctuations and negligence.

<sup>☐</sup> For further information visit http://redlist.dmu.dk

# Breeding pairs of the 20 most common birds in Denmark 2005

No.	Species	Number of breeding pairs	Trend
1	Blackbird	2 000 000 – 2 500 000	Stigendel
2	Chaffinch	1 500 000 – 2 000 000	Stabil
3	Skylark	1 100 000 – 1 300 000	Faldende
4	Great tit	700 000 - 1 000 000	Stabil
5	House sparrow	500 000 - 1 000 000	Faldende
6	European greenfinch	500 000 - 700 000	Stigende
7	Starling	400 000 - 600 000	Faldende
8	Willow warbler	400 000 - 600 000	Faldende
9	Yellowhammer	400 000 - 600 000	Faldende
10	Tree sparrow	400 000 - 600 000	Stigende
11	Wren	300 000 - 500 000	Svingende
12	Whitethroat	300 000 – 450 000	Stabil
13	Blackcap	300 000 – 450 000	Stigende
14	Wood pigeon	250 000 - 300 000	Stigende
15	Chiff chaff	200 000 - 300 000	Stigende
16	Robin	200 000 - 300 000	Svingende
17	Song thrush	200 000 – 300 000	Stabil
18	Magpie	200 000 – 300 000	Stabil
19	Bluetit	200 000 – 250 000	Stabil
20	Swallow	200 000 – 250 000	Faldende

Source: The Danish Ornithological Society. Ynglefuglebestande i Danmark 2003.

Table 11

## Breeding pairs of the 20 rarest birds in Denmark 2005

No.	Species	Number of breeding pairs	Trend
1	Tengmalm's owl	0-1	Svingende
2	Little gull	0-1	Svingende
3	White stork	1	Faldende
4	Osprey	1	Svingende
5	Whitethroated dipper	1	Svingende
6	Crested lark	1-2	Faldende
7	Whopper swan	2	Stigende
8	Peregrine falcon	2	Stigende
9	Golden plover	2	Faldende
10	Gullbilled tern	2	Faldende
11	Fulmar	2-4	Uændret
12	Tawny pipit	2-4	Faldende
13	Golden eagle	3	Stigende
14	Short-eared owl	3	Faldende
15	Great reedwarbler	4-5	Faldende
16	Blackheaded gull måge	7	Stigende
17	Red-crested pochard	12	Stigende
18	White-tailed eagle	12	Stigende
19	Hobby	15-19	Svingende
20	Spoonbill	21	Stigende

Note. A bird is not considered an established Danish breeding bird until it has bred for at least 5 consecutive years. Protection of wild birds is regulated in accordance with the Danish administrative game legislation and the Danish Protection of Nature Act.

<sup>■</sup> For further information www.dof.dk

<sup>&</sup>lt;sup>1</sup> The last breeding pair was registered in 2001 <sup>2</sup> New breeding bird having bred for less than 5 years in Denmark. Source: The Danish Ornithological Society: 'Threatened Breeding pairs', 2000. *Threatened Breeding pairs 2000, Dansk Ornitologisk Forenings Tidsskrift. 97* (2003): pages 175-192 and unpublished data from 2003.

For further information visit www.dof.dk