chief game birds. A close time protects birds not considered game, and the federal council in 1885 appointed a commission to draw up a catalogue of all birds found in Switzerland, and to establish stations for collecting facts of ornithological interest.

Attention has recently been directed to the diminution of the supply of freshwater fish, due in part to over-fishing and in part to pollution of the streams. It is estimated that the fish-bearing waters in the whole country cover an aggregate area of 1581 square kilometres (1348 belonging to lakes and 233 to rivers and streams), the cantons with the greatest areas being Vaud (443 square kilo­metres), Bern (161), Thurgau (139), aud Neuchâtel (98). Close seasons, and in certain places close years, have been established, and numerous fish-hatcheries are also in operation (57 in 1885), the species treated being mainly salmon, lake trout, river trout, gray­ling (ombre), red trout or Röthel, the Swiss *Coregonus,* American *Coregonus (C. albus), Salmo fontinalis,* and the “mäder.” No fewer than 5,709,432 fish were introduced into the lakes and rivers in 1885. By a law of 1884 the federal council is allowed to defray

one-third of the expense of the construction of fish-ladders. In 1882 a Swiss fisheries society was founded. Conventions in regard to the fisheries have been signed with Italy, France, and Germany.

Great importance attaches to the domestic animals of Switzer­land. In 1876 there were 284,478 owners of live-stock, in 1886 289,610. The following are the numbers for those two years :— horses, 100,935 and 98,333; cattle, 1,035,930, 1,211,713 ; sheep, 367,549, 341,632; goats, 396,055, 415,916; pigs, 334,515, 394,451; mules, 3145, 2741 ; asses, 2113, 2042; and beehives, 177,825, 207,180. See *Z. f. schw. Statistik,* 1886.

The following table gives a variety of details regarding the twenty-two Swiss cantons, arranged in the order of their extent. In the first column the languages principally spoken in the different cantons are indicated by letters, as described in the appended foot­note, and the percentages of population speaking them in 1880 are given. In every case the official language is that of the majority, with the exception of Freiburg, where it is German. The same column also shows the various executive and legislative authorities.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Canton.\* | Date of Admis­sion. | Date of Present Constitution. | Area in English Square  Miles. | Population. | | Density  per  Square  Mile. | Deputies  in Na­tional Rath. | Cantonal Capital. | Popula­tion of Capitals. |
| 1850. | 1880. |
| Grisons (Graubünden) ..G 46, R 40, I 14..K ; L | 1803 | 1880 | 2754·0 | 89,840 | 94,991 | 35 | 5 | Chur | 8,889 |
| Bern (Berne) G 85. F 15 A ; L | 1353 | 1846 | 2659∙5 | 457,921 | 532,l64 | 205 | 27 | Bern | 44,087 |
| Valais (Wallis) F 67, G 32 D ; L | 1815 | 1875 | 2026∙3 | 81,527 | 100,216 | 500 | 5 | Sion | 4,871 |
| Vaud (Waadt). F 89, G 9 B ; Μ | 1803 | 1861 (’72) | 1244·3 | 199,453 | 238,730 | 194 | 12 | Lausanne | 30,179 |
| Ticino (Tessin) I 99·0 C; N | 1803 | 1830 (’83) | 1088·0 | 117,397 | 130,777 | 122 | 7 | Bellinzona | 2,436 |
| St Gail (Sankt Gallen)..G 99·1 A; L | 1803 | 1861 (’75) | 779·5 | 169,508 | 210,491 | 281 | 10 | St Gall | 21,438 |
| Zurich G 98·8 A ; O | 1351 | 1869 | 665·9 | 250,134 | 317,576 | 500 | 16 | Zurich | 75,956 |
| Freiburg (Fribourg) F 69, G 31 D; L | 1481 | 1857 | 644·4 | 99,805 | 115,400 | 181 | 6 | Freiburg | 11,546 |
| Lucerne (Luzern) G 99·5 A; L | 1332 | 1875 (’82) | 579·4 | 132,789 | 134,806 | 234 | 7 | Lucerne.. | 17,850 |
| Aargau (Argovie) G 99·6 A ; L | 1803 | 1852 (’77) | 542·0 | 199,720 | 198,645 | 364 | 10 | Aarau | 5,944 |
| Uri G 76, Ι 22 A, E ; P | 1291 | 1850-51 | 415·4 | 14,500 | 23,694 | 57 | 1 | Altorf | 2,901 |
| Thurgau (Thurgovie)....G 99·5 A ; L | 1803 | 1869 | 381·4 | 88,819 | 99,552 | 295 | 5 | Frauenfeld.... | 5,811 |
| Schwyz G 96·9 A ; O | 1291 | 1876-77 | 3507 | 44,159 | 51,235 | 151 | 3 | Schwyz | 6,543 |
| Neuchâtel (Neuenburg) .F 75, G 24 B; M | 1815 | 1858 (’80) | 311·8 | 70,679 | 103,732 | 343 | 5 | Neuchâtel | 15,612 |
| Soleure (Solothurn) G 98·9 A; O | 1481 | 1875 | 305·9 | 69,613 | 80,424 | 272 | 4 | Soleure | 7,668 |
| Obwald ..G 99·3 A; P  Nidwald..G 99·0 A ; P | 1291 | 1867  1877 | 295·4 | 25,135 | 27,348 | 94 | 1 | Sarnen  Stanz | 4,039  2,210 |
| Glarus G99·3 H; P | 1352 | 1842 (’80) | 266·8 | 30,197 | 34,213 | 124 | 2 | Glarus | 5,530 |
| Basel (Basle, ) Urban ...G 96·3 A; L | 1501 | 1875 | 13·8 | 769 | 3 | Basel | 6l'399 |
| Bâle) Rural....G 99·5 A; Q | 1863 | 162·7 | 77,385 | 124,372 | 3 | Liestal | 4'679 |
| Anneuzell Outer G 99·6  Appenzell Innter G 99·9 | 1513 | 1876 1872 | 93·4  68·5 | 54,869 | 64,799 | 66 | 1 | Appenzell  Herisau | 4'302 11,082 |
| Schaffhausen G 99·4 A; L | 1501 | 1876 | 113·6 | 35,278 | 38,348 | 335 | 2 | Schaffhausen. | ll', 795 |
| Geneva (Genf, Ginevra).F 85, G 11 B; M | 1815 | 1847 (’79) | 107·8 | 63,932 | 101,595 | 1013 | 5 | Geneva | 68,320 |
| Zug. G 98·3 A; O | 1352 | 1873 (’81) | 92·3 | 17,456 | 22,994 | 259 | 1 | Zug | 4,924 |

\* Languages.—G, German; F, French; I, Italian; R, Romansch. Executive Authority.—A, Regierungsrath; B, Conseil d’état; C, Consiglio di stato; D, Staatsrath ; E, Standeskoinmission ; H, Rath u. Standeskommission ; K, Kleiner Rath u. Standeskommission. Legislative Authority.—L, Grosser Rath; M, Grand conseil ; N, Gran consiglio; 0, Kantonsrath; P, Landsgemeinde; Q, Landrath. For details regarding the Stände Rath, of 44 members, and the National Rath, of 145 (made up as shown in column 8 above), see p. 795 ; and for information regarding the referendum in the cantons, see p. 796.

The first federal census of which the results were published was neither quite synchronous (April 1836 to February 1838) nor quite systematic. That of 1850 took account only of the population with right of residence *(population domiciliée),* and not of the population actually present at the date of the census. In 1860 the census was declared decennial. The following are the numbers returned:— March, 18-23, 1850, 2,392,740; December, 10, 1860, 2,507,170; December 1, 1870, 2,669,147; December 1, 1880, 2,846,102.

As regards density of population, Switzerland, with 198·5 persons to the square mile, stands considerably above Scotland (125) and a long way below England and Wales (446). The Alpine region is the sparsest generally, though certain districts, like Appenzell Ausser-Rhoden, are very densely peopled ; the Jura region has a much higher ratio ; and the densest region of all is the Swiss plateau. If we draw an irregular line from the east end of the Lake of Geneva by Thun, Lucerne, and the south of the Lake of Zurich to Rheineck, we shall have nearly all the more densely populated portions of the country to the north, the only notable exception being what might be called the Swiss peninsula of Lugano. A large proportion of the country to the south has only from 1 to 19 inhabitants to the square kilometre. The districts where the density rises above 250 to the square kilometre are that to the south-east and south-west of Geneva, the vicinity of Lausanne, the districts of Chaux de Fonds, Neuchâtel, Biel, Bern, Soleure, Basel, a large tract along both sides of the Lake of Zurich, and the district between St Gall and Rheineck. The districts in which an increase of population had taken place between 1870 and 1880 are curiously distributed. An increase of 30 per cent. or over occurs only in the environs of Basel and in two large areas of which the chief centres are Altdorf and Airolo. Decrease was prevalent throughout a large part of the better populated regions of the north, while a certain increase had taken place throughout much of the south-western area.

In 1880 there were 960·8 males to every 1000 females, a rather smaller preponderance of females than in England and Wales. For every 1000 above the age of 50 there are 176 unmarried females to 154 unmarried males. The disproportion of the sexes in the country at large is mainly due to emigration ; but in certain cantons it is partly due to excess of women in the immigrants from neighbouring countries. In Uri, Schwyz, and Valais only is there an excess of males. In every 1000 of the population there were, in 1860, 296 under 15 years of age, 620 between 15 and 60 years, and 84 upwards of 60; the corresponding figures in 1870 being 315, 595, and 90; and for 1880, 319, 593, and 88. The pro­portion of married persons to the total number of the adults (47·4 per cent. ) is less than in most other countries, though this pro­portion has been gradually raised both before and since 1880 by certain legislative changes, including the new marriage law in 1874. At the same time the average fertility of the marriages has decreased. Early marriages on the part of the males are slightly more frequent than in England. Divorce and separation are fre­quent. Thus in 1876·80 they formed nearly 5 per cent. of the marriages, while in Belgium and the Netherlands they do not reach 1 per cent. As regards the marriage relations of the different creeds, the five years 1877-81 showed that (excluding the canton of Geneva, where the creed is not registered) there were only 0·7 separations per 1000 existing marriages where both husband and wife were Catholics, 2·8 where both were Protestants, 3·2 where the husband was a Catholic and the wife a Protestant, and 4·5 where the husband was a Protestant and the wife a Catholic.

The percentage of illegitimate births during the years 1871—77 was 5·7, 5·2, 5·1, 4·8, 4·4, 5·0, and 4·9 respectively, a rate almost identical with that of England and Wales. Infant mortality has been decreasing. While 20·32 per cent. of the quick-born children of 1876 died in their first year, only 17·3 died in 1885.