

Victorian Year-Book, 1928-29.

INTRODUCTION.

GEOGRAPHICAL POSITION, AREA, AND CLIMATE.

Area of Victoria. Victoria is situated at the south-eastern extremity of the Australian continent, of which it occupies about a thirty-fourth part, and it contains about 87,884 square miles, or 56,245,760 acres. It is bounded on the north and north-east by New South Wales, from which it is separated by the River Murray, and by a straight line running in a south-easterly direction from a place near the head-waters of that stream, called The Springs, on Forest Hill, to Cape Howe. On the west it is bounded by South Australia, the dividing line being about 242 geographical miles in length, approximating to the position of the 141st meridian of east longitude, and extending from the River Murray to the sea. On the south and south-east its shores are washed by the Southern Ocean, Bass Strait, and the Pacific Ocean. It lies between the 34th and 39th parallels of south latitude and the 141st and 150th meridians of east longitude. Its extreme length from east to west is about 420, its greatest breadth about 250, and its extent of coast-line nearly 600 geographical miles. Great Britain, exclusive of the islands in the British Seas, contains 88,756 square miles, and is therefore slightly larger than Victoria.

The southernmost point in Victoria, and in the whole of the Australian continent, is Wilson's Promontory, which lies in latitude 39 deg. 8 min. S., longitude 146 deg. 26 min. E.; the northernmost point is the place where the western boundary of the State meets the Murray, latitude 34 deg. 2 min. S., longitude 140 deg. 58 min. E.; the point furthest east is Cape Howe, situated in latitude 37 deg. 31 min. S., longitude 149 deg. 59 min. E.; the most westerly point is the line of the whole western frontier, which, according to the latest correction, lies upon the meridian 140 deg. 58 min. E., and extends from latitude 34 deg. 2 min. S. to latitude 38 deg. 4 min. S., a distance of 242 geographical miles.

Climate. From its geographical position, Victoria enjoys a climate more suitable to the European constitution than any other State upon the Continent of Australia. In the seventy-three years ended with 1928 the maximum temperature in the shade recorded at the Melbourne Observatory and the Weather Bureau was 111.2 deg. Fahr.,

on the 14th January, 1862; the minimum was 27 deg., on the 21st July, 1869; and the mean was 58·4 deg. Upon the average, on only four days during the year does the thermometer rise above 100 deg. in the shade, and on 19·4 days the temperature reaches 90 deg. or over; generally, on about two nights during the year it falls below freezing point. Sultry nights are of rare occurrence. It is only occasionally that a high minimum is recorded. The minimum reading approximates to 70 deg. on an average on only two nights in any one year. The maximum temperature in the sun ever recorded (i.e., since 1859) was 178·5 deg., on the 14th January, 1862. The mean atmospheric pressure noted, first at the Observatory 91 feet above the sea level, and later at the Weather Bureau 115 feet above sea level, was, during the seventy-one years ended with 1928, 30·012 inches; the average number of days on which rain fell each year was 138, and the average yearly rainfall was 25·45 inches. The mean relative humidity of the atmosphere is 68 per cent.; on very warm days it is often 12 per cent., and it has been as low as 2 per cent. The severity of the heat is not felt so much as it would be if there were a relatively high wet bulb, as the temperature by such bulb seldom exceeds 75 deg. The average number of hours of sunshine daily is 5·3, and fogs occur, on an average, on only 19 days in the year.

MOUNTAINS AND HILLS, RIVERS AND LAKES.

The highest mountain in Victoria is Mount Bogong,*
 situated in the county of the same name, 6,509 feet
 above the sea-level; the next highest peaks are—
 Mount Feathertop, 6,306 feet; Mount Nelson, 6,170 feet; Mount
 Fainter, 6,160 feet; Mount Hotham, 6,100 feet; Mount McKay,
 6,030 feet; and Mount Cope, 6,027 feet; all situated in the same
 county; also the Cobboras, 6,030 feet, situated between the
 counties of Benambra and Tambo. These, so far as is known, are
 the only peaks which exceed 6,000 feet in height; but, according
 to a list which appears in the *Year-Book* for 1915-16, there
 are 39 peaks between 5,000 and 6,000 feet high, and 40 between 4,000
 and 5,000 feet high; it is known, moreover, that there are many peaks
 rising to upwards of 4,000 feet above the level of the sea whose actual
 heights have not yet been determined.

With the exception of the Yarra, on the banks of which
 the metropolis is situated; the Murray; the Goulburn,
 which empties itself into the Murray about eight miles to the east-
 ward of Echuca; and the La Trobe and the Mitchell, with, perhaps,
 a few other of the Gippsland streams, the rivers of Victoria are not

* The highest mountain on the Australian Continent is Mount Kosciusko, in New South
 Wales, one peak of which is 7,328 feet high.

navigable except by boats. They, however, drain the watershed of large areas of country, and many of the streams are used as feeders to permanent reservoirs for irrigation and water supply purposes. The Murray, which forms the northern boundary of the State, is the largest river in Australia. Its total length is 1,520 miles, for 1,200 of which it flows along the Victorian border. Several of the rivers in the north-western portion of the State have no outlet, but are gradually lost in the absorbent tertiary flat country through which they pass.

Lakes. Victoria contains numerous salt and fresh-water lakes and lagoons; but many of these are nothing more than swamps during dry seasons. Some of them are craters of extinct volcanoes. Lake Corangamite, the largest inland lake in Victoria, covers 90 square miles, and is quite salt, notwithstanding that it receives the flood waters of several fresh-water streams. It has no visible outlet. Lake Colac, only a few miles distant from Lake Corangamite, is a beautiful sheet of water, $10\frac{1}{2}$ square miles in extent, and quite fresh. Lake Burrumbeet is also a fine sheet of fresh water, embracing 8 square miles. The Gippsland lakes—Victoria, King, and Reeve—are situated close to the coast, and are separated from the sea by only a narrow belt of sand. Lake Wellington, the largest of the Gippsland lakes, lies to the westward of Lakes Victoria and King, and is united to the first-named by a narrow channel. South-east of Geelong is Lake Connewarre, which is connected with the sea at Point Flinders.

A list of mountains and hills, rivers and lakes in Victoria appears in the *Victorian Year-Book* for 1915-16. This was revised by the late Surveyor-General, Mr. A. B. Lang, and contains information in regard to heights, lengths, and areas respectively.

FLORA OF VICTORIA.

An article on the "Flora of Victoria," by J. W. Audas, Esq., F.L.S., F.R.M.S. (National Herbarium, Melbourne), appeared in the *Victorian Year-Book*, 1927-28, on pages 3 to 19. An addendum to this article is contained hereunder:—

ADDENDUM TO THE ABOVE ARTICLE.

Supplied by Mr. Audas in April, 1929.

The following species new to science were added to the list of the flora during the year 1928-29:—

Calochilus Richae Nicholls "Short-beard *Calochilus*" (Orchidaceae).

Corysanthes dilatata Rupp and Nicholls, "Stately Helmet-Orchid" (Orchidaceae).

Caladenia Hilda Pescott and Nicholls, "Golden *Caladenia*" (Orchidaceae).

Cassinia complanata J. M. Black, "Smooth *Cassinia*" (Compositae).

Senecio orarius J. M. Black, "Coast Groundsel" (Compositae).

NEW RECORD OF NATIVE FLORA.

During the period sixteen species not previously recorded for this State have been added to the list of Victorian flora, viz. :—

Lepidosperma Forsythii A. A. Hamilton, "Stout Twist-Sedge" (Cyperaceae).

Thelymitra media R. Br., "Tall Sun-Orchard" (Orchidaceae).

Corysanthes diemenica Lindl., "Purple Helmit-Orchid" (Orchidaceae).

Pterostylis Woollsi Fitz., "Long-tail Greenhood" (Orchidaceae).

Atriplex campanulatum Benth., "Bell Saltbush" (Chenopodiaceae).

Bassia biflora F.v.M., "Two-flower Saltbush" (Chenopodiaceae).

Bassia divaricata F.v.M., "Tangled Saltbush" (Chenopodiaceae).

Kochia oppositifolia F.v.M., "Opposite-leaf Saltbush" (Chenopodiaceae).

Babbagia acroptera F.v.M. and Tate, "Small Babbagia" (Chenopodiaceae).

Pultenaea densifolia F.v.M., "Dense-leaf Bush-Pea" (Leguminosae).

Pomaderris cinerea Benth., "Ashy Pomaderris" (Rhamnaceae).

Sida intricata F.v.M., "Tangled Sida" (Malvaceae).

Marsdenia australis (R.Br.) J. M. Black, "Austral Doubah" (Asclepiadaceae).

Asperula charophyton Sh. and Turr., "Long-leaf Woodruff" (Rubiaceae).

Asperula minima Hk.f., "Tiny Woodruff" (Rubiaceae).

Asperula subsimplex Hk.f., "Water Woodruff" (Rubiaceae).

PLANTS REMOVED TO ANOTHER GENUS.

Asperula gemella Sh. and Turr. (*Galium geminifolium* F.v.M.).

Pseudoraphis paradoxa (R. Br.) Pilger (*Chamaeraphis paradoxa* (R. Br.) Poir).

Syzygium Smithii (Spreng) Ndz. (*Eugenia Smithii* Poir).

Plagiobothrys elachanthus (F.v.M.) Johnston (*Eritrichium australasicum* D.C.).

Plagiobothrys pluricephalus (F.v.M.) Johnston (*Rochelia Maccoya*).

CORRECTIONS.

The following corrections have been made in the census of Victorian plants to conform with the rules of Vienna Conference :—

Phragmites vulgaris (Lam.) Druce for *P. communis* Trin.

Asperula wimmerana Sh. and Turr. for *A. helix* Sh. and Turr.

EXOTICS.

NEW PLANTS RECORDED DURING 1928-29.

Nine introduced plants have been recorded as growing wild for the first time, viz. :—

Borago officinalis L., "Common Borage" (Borraginaceae). Native to Europe. It is an annual herb, rich in nitrate of potassium, occasionally used for medicinal purposes, or as an admixture to salad. Readily disseminating itself. It is a good honey plant.

Centaurea paniculata L., "Purplish Corn Flower" (Compositae). Native to Europe. It is a serious pest on the Continent, and every endeavour should be made to exterminate it. It is a perennial.

Herniaria hirsuta L., "Rupture-Wort" (Caryophyllaceae). Native to Europe, Asia Minor, and East Indies. It has no economic value.

Petasites fragrans Presl., "Bog Rhubarb" or "Common Butter Burr" (Compositae). Native to Southern Europe. A weed of wet meadows and river banks.

Physalis lanceolata L., "Prairie Ground Berry" (Solanaceae). Native to North America, where it is a most serious weed. It has become a grave menace and spreading rapidly in Goulburn Valley district.

Ranunculus Lingua L., "Greater Spearwort" (Ranunculaceae). Native to Europe. An escape from cultivation.

Schismus fasciculatus Beauv., "Kelch Grass" (Gramineae). Native to Asia and South Africa. A good fodder plant under dry conditions.

Symphytum officinale L., "Comfrey" (Borraginaceae). Native to Europe. A perennial herb. The root is utilized chiefly in veterinary practice.

Watsonia marginata Ker Gawl., "Margined Bugle Lily" (Iridaceae). Native to South Africa. An ornamental plant—an escape from cultivation.

PHYSICAL GEOGRAPHY AND GEOLOGY OF VICTORIA.

An article on the "Physical Geography and Geology of Victoria," by W. Baragwanath, Esq., Director of Victorian Geological Survey, appeared in the *Year-Book* for 1927-28 on pages 20 to 30.

ADDENDUM TO THE ABOVE ARTICLE.

Boring operations in the vicinity of Lakes Entrance, Gippsland, have revealed small quantities of mineral oil associated with artesian water in a glauconite bed of Tertiary age immediately overlying the bedrock. Three bores, ranging from 1,150 to 1,400 feet in depth, over a distance of 5 miles, have proved the bed to dip towards the west. The amount of oil is small (approximately 1 pint daily), but is of interest as affording the first evidence of the presence of crude mineral oil in the State. Further boring is in hand to test the continuity of the stratum in which the oil exists.

THE FAUNA OF VICTORIA.

An article on the "Fauna of Victoria," by the late T. S. Hall, M.A., D.Sc. (University of Melbourne), and J. A. Kershaw, Esq., F.Z.S., Curator of the National Museum, Melbourne, appeared in the *Year-Book* for 1916-17, and addenda thereto by Mr. Kershaw in the *Year-Books* for 1918-19 and 1920-21.

THE HISTORY OF VICTORIA.

An article on this subject contributed by Ernest Scott, Professor of History in the University of Melbourne, appeared in the *Year-Book* for 1916-17, pages 1 to 31.

CHRONOLOGICAL TABLE OF LEADING EVENTS.

The *Year-Book* for 1916-17 contained, on pages 31 to 50, a chronological table of leading events in Victorian history for the years 1770 to 1900 inclusive, and of leading events in Victorian and other history for the years 1901 to 1916 inclusive. The leading events in the eleven years 1917 to 1927 were given in the volumes relating to those years.

Some of the principal events in Victorian and other history during 1928 are given in the table which follows:—

1928. 27th January	..	Twelve children died at Bundaberg, Queensland, following inoculation to provide immunity from diphtheria.
29th January	..	Death in London of Field Marshal Earl Haig, Commander-in-Chief of the British forces in the Great War.
7th February	..	Captain Hinkler left London for Australia by air. Darwin was reached on 22nd February, i.e., in sixteen days.
15th February	..	Death in London of the Earl of Oxford and Asquith.
19th March	..	The British aviators, Captain Lancaster and Mrs. Miller, reached Darwin after flying from London.
17th April	..	Announced that Lord Kylsant had bought the Commonwealth line of ships for £1,900,000.
21st April	..	Reported that Captain G. H. Wilkins, the Australian explorer, with Lieutenant Eileson (U.S.A.) had succeeded in flying across the Arctic regions from Point Barrow (Alaska) to Spitzbergen, north of Norway.
7th May	..	Death of the Hon. H. E. Pratten, Minister for Trade and Customs, at Turramurra, New South Wales, aged 63.
2nd June	..	The yield of wheat in the Commonwealth for 1927-28 announced as 117,000,000 bushels. This yield is smaller than that of the previous five years, which averaged 135,000,000 bushels per annum.

- 9th June .. Arrival at Brisbane of the aviators Captain Kingsford Smith and Mr. C. T. P. Ulm, with two assistants, who flew from San Francisco via Fiji to Australia.
- 29th June .. Arrival at Melbourne of four British supermarine flying boats, under the command of Captain Cave Brown Cave, after completing a cruise of 16,000 miles from Great Britain.
- 2nd July .. Party of British scientists, under the leadership of Dr. C. M. Yonge, reached Melbourne. The object of their visit to Australia is to investigate the Great Barrier Reef off the Queensland coast.
- 1st August .. The new Commonwealth Bankruptcy Act came into operation.
- 23rd August .. Announced that subscriptions to the Commonwealth £20,000,000 conversion loan totalled £21,780,000.
- 27th August .. Cardinal Cerretti, the Papal Legate, on his way to attend the Eucharistic Congress at Sydney, was welcomed by the Lord Mayor at the Melbourne Town Hall.
- 3rd September .. Proclamation issued that the Federal-States financial agreement had been brought into operation.
- 5th-9th September Eucharistic Congress held in Sydney.
- 25th September .. British Economic delegation, consisting of Sir A. Duckham (chairman), Sir E. Clark, Sir H. Hirst, and Mr. D. O. Malcolm, reached Fremantle from London.
- 14th October .. Captain Kingsford Smith and Mr. Ulm, with two companions, reached Richmond, New South Wales, from New Zealand, in 23 hours.
- 22nd October .. Death in London of the Hon. A. Fisher, a former Prime Minister of the Commonwealth and High Commissioner, aged 64 years.
- 17th November .. Federal elections held throughout Australia. The Nationalists and Country party were continued in power with a reduced majority. A referendum regarding the proposed financial agreement between the Commonwealth and States resulted in a large "Yes" majority.
- 22nd November .. A Nationalist Ministry, under the leadership of Sir W. M. McPherson, assumed office.
- 19th December .. British Economic Commission ended their investigations into the commercial, industrial, financial, and pastoral affairs of the Commonwealth.
- 31st December .. The population of Melbourne and suburbs within a radius of 10 miles estimated to number 1,000,000 persons.

PROGRESS OF STATE SINCE 1850.

The following table has been prepared to illustrate the advance made by the State since 1850—the year immediately preceding the separation of the Colony from New South Wales. The subsequent years are census years except the last :—

STATISTICS OF VICTORIAN PROGRESS, 1850 TO 1928.

	1850.	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1928.
Population, 31st December ..	76,162	541,800	747,412	879,886	1,157,678	1,209,900	1,339,893	1,550,686	1,760,964
Revenue £	259,483	2,592,101	3,734,422	5,186,011	8,343,588	9,372,637	7,712,099	9,372,637	19,054,475
Expenditure from Revenue £	196,440	3,092,021	3,859,534	5,108,642	9,128,699	7,672,780	9,362,291	18,941,698	27,521,270
Public Debt £		6,835,060	12,134,800	22,944,802	43,610,265	53,072,275	57,983,764	97,317,831	158,183,470
Gold produced oz.		1,967,453	1,355,477	858,550	576,400	789,562	542,074	114,602	37,259
Wool produced lbs.	16,345,468	22,640,745	37,177,646	45,970,560	76,503,635	73,235,138	101,803,644	90,250,571	121,033,646
Butter produced "					16,703,786	46,857,572	86,500,474	64,938,468	84,270,812
Agriculture—									
Land in cultivation .. acres	52,341	427,241	793,918	1,582,998	2,512,593	3,647,459	5,386,247	6,425,260	7,634,302
Wheat bushels	556,167	3,607,727	4,500,795	8,714,377	13,679,268	12,127,382	34,813,019	39,468,625	26,160,814
Oats "	99,585	2,136,430	3,299,889	3,612,111	4,455,551	6,724,900	9,699,127	10,907,191	4,682,724
Wine gallons	4,621	47,568	713,589	539,191	1,554,130	1,981,475	1,362,420	2,222,305	1,739,560
Live Stock—Horses .. No.	21,219	84,057	181,643	278,195	440,696	392,237	472,080	487,503	428,666
" Cattle "	378,806	623,092	799,509	1,236,677	1,812,104	1,602,384	1,547,569	1,575,159	1,327,077
" Sheep "	6,032,783	6,239,258	10,002,381	10,267,265	12,923,148	10,841,790	12,882,665	12,171,084	15,557,067
" Pigs "	9,260	43,480	177,447	239,926	286,780	350,370	333,281	175,275	212,785
Total Imports—Value .. £	744,925	13,532,452	12,341,995	16,718,521	21,711,608	18,927,340	28,150,198*	..	..
" Exports—Value .. £	1,041,796	13,823,606	14,557,820	16,252,103	16,006,743	18,646,097	29,896,275*	..	..
Imports, Oversea—Value £	..	10,991,377	9,201,942	11,481,567	13,802,598	12,686,880	21,850,963	57,608,777	47,911,313
Exports "	..	12,209,794	12,843,451	12,318,128	11,403,922	13,075,259	18,015,716	34,871,961	31,728,558
Shipping tonnage	195,117	1,090,002	1,355,025	2,411,902	4,715,109	6,715,491	9,907,046	9,314,944	13,714,122
Railways open miles	..	214	276	1,247	2,764	3,238	3,496	4,271	4,707
Telegraph wire "	..	2,536	3,472	6,626	13,989	15,356	16,405	31,243	†
Postal business—Letters No.	381,651	6,109,929	11,716,166	26,308,347	62,526,448	83,973,499	159,092,011	180,797,030	†
" Newspapers "	381,153	4,277,179	5,172,970	11,440,732	22,729,005	27,104,344	36,125,728	31,660,611	†
Savings Bank Deposits £	52,697	532,796	1,117,761	2,569,438	5,715,687	9,662,006	18,213,040	48,262,058†	67,311,386†
Factories—									
Number of "	..	531	1,740	2,488	3,141	3,249	4,873	6,532	8,245
Hands employed "	..	4,395	19,468	43,209	52,225	66,529	102,176	140,743	160,357
Value of machinery, plant, land, and buildings £	..	..	4,725,125	8,044,296	16,472,859	12,298,500	16,613,348	35,492,735	67,507,020
Value of articles produced £	..	..	..	13,370,836	22,390,251	19,478,780	36,660,854	100,098,294	128,465,317
State Education—									
Number of Primary schools	61	671	988	1,757	2,233	1,967	2,059	2,334	2,529
Expenditure on Education £	..	162,547	274,384	546,285	726,761	701,034	1,052,418	2,117,151	3,570,537
Total value of rateable property in municipalities .. £	..	29,638,091	50,166,078	87,642,459	203,351,360	185,101,993	265,083,727	399,502,745	636,746,560
Friendly Societies—									
Number of members "	..	7,166	35,706	47,908	89,269	101,045	145,439	143,421	161,131
Total funds .. .. . £	..	..	213,004	475,954	961,933	1,370,604	2,246,396	3,375,060	4,758,383

NOTE.—In a few instances in the earlier years, where it is not possible to give figures for the exact date or period shown, those for the nearest dates or periods are given. Gold was discovered in 1851, in which year the return was 145,137 oz. Butter figures were not collected prior to 1891.

* These figures relate to the calendar year 1909. Owing to the Commonwealth authorities having discontinued the keeping of records of Inter-State trade the value of the total imports and exports of the State are not available for a later year.

† Including deposits in the Commonwealth Savings Bank.

‡ Information not available.

The population of the State at the end of 1850 was 76,162; at the end of 1928 it had increased to 1,760,964. During the period 1850-1928 the revenue steadily increased from £259,433 to £27,357,917. There was no public debt until after the separation of the State from New South Wales. In 1861 the State indebtedness was £6,835,060; in 1928 the funded debt had reached £158,183,470, which has been spent on revenue-yielding and other works of a permanent character. The land in cultivation in 1850 was 52,300 acres; it now amounts to 7,634,302 acres. The value of oversea imports in 1861 was £10,991,377; in 1927-28 it was £47,911,313. Oversea exports amounted to £12,209,794 in 1861, and to £31,728,558 in 1927-28. No railways or telegraphs were in existence up to the end of 1855; in 1861 there were 214 miles of railway open, and in 1928 there were 4,707 miles. Postal business in letters and newspapers has expanded rapidly during the period covered by the table, and there has also been a large increase in Savings Bank deposits, which rose from £52,697 in 1850 to £67,311,386 in 1928.

The expenditure on education amounted to £162,547 in 1861, and had increased to £3,570,537 in 1927-28. Members of friendly societies numbered 7,166 in 1861 and 161,131 in 1927-28—the funds amounting to £213,000 in 1871 and £4,758,383 in 1927-28. Hands employed in factories rose from 19,468 in 1871 to 160,357 in 1927-28. The total value of rateable property in municipalities, which was £29,600,000 in 1861, was £636,746,560 in 1927-28.

CONSTITUTION AND GOVERNMENT.

The Present Constitution.

After the establishment of the Federal Government it became evident that the representation of the States in the States Houses was excessive, and steps were taken to reform the States Constitutions. Accordingly an Act "to provide for the Reform of the Constitution" was passed in Victoria and reserved for the Royal assent on 7th April, 1903. After an interval of some months the Royal assent was proclaimed on 26th November, 1903. This Act, entitled *The Constitution Act 1903*, provided for a reduction in the number of responsible Ministers from ten to eight, and in their salaries from £10,400 to £8,400 (since increased to £10,000); and decreased the number of members of the Legislative Council from 48 to 35, including one special representative for the State railways and public servants; but increased the number of electoral provinces from fourteen to seventeen, each being now represented by two members elected for six years—one retiring every three years by rotation, except at a general election, when one-half of the members are to be elected for only three years. The

**Reform Act
1903.**