

ELEVENTH

ANNUAL REPORT

OF THE

BURTON-ON-TRENT

Natural History and Archaeological
SOCIETY

YEAR ENDING DECEMBER 31ST, 1886.

BURTON-ON-TRENT:
JOHN C. PERFECT, PRINTER, STATION STREET.

1887.



Past Presidents.



1876—S. E. EKSHED, Esq., M.P.

1877— „ „

1878—REVD. C. F. THORNEWILL

1879—H. G. TOMLINSON, Esq.

1880—W. MOLYNEUX, Esq.

1881—R. THORNEWILL, Esq.

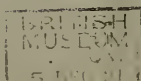
1882—C. O'SULLIVAN, Esq., F.R.S.

1883—REVD. C. F. THORNEWILL

1884—HON. G. H. ALLSOPP, M.P.

1885—J. T. HARRIS, Esq.

1886— „ „



ANNUAL GENERAL MEETING, 1887.

THE ELEVENTH ANNUAL GENERAL MEETING was held in the Rooms of the School of Science, at the Institute, Union Street, on Friday, March 23rd, 1887.

The President—Mr. J. T. Harris—took the Chair, with a good attendance of the more active members of the Society.

The following Report of the Committee was read by the Honorary Secretary, Mr. F. E. Lott.

The Committee regret to have to draw the attention of members to the fact that, although the removal of the Society's meetings to the School of Science has been accompanied by a slight improvement in the average attendance of members at the meetings, it has not been sufficient to lead the Committee to invite gentlemen to read Papers before the Society as frequently as they could wish.

Four General Meetings have been held, and the average attendance (17) is an advance on that of last year; the absence, however, of any Sectional Papers reduces the value of this improvement.

Only two Papers were read:—

1886—Nov. 3rd—"The Dawn of Life" by Egbert de Hamel, Esq. } 10 present.

1887—Feb. 16th } "A Night among our Old Abbeys and Churches } 50 present.
by Lantern Light," by A. Scrivener, Esq.

The other two meetings were of an informal character, and only attended by a few members.

Such being the condition of our Meetings, we recommend that this year a programme be arranged at the commencement of the Winter Session, that Meetings be held once a month, and that some two or three short Papers be read at each Meeting. Members of neighbouring Societies being invited to read Papers as heretofore.

Your Committee, considering that the Society was not supported by sufficient members to make the Sectional arrangements, as conducted last Winter, a success, passed a resolution to the effect "that the present Sections be dissolved, and that, in future, no Section be formed unless a



EXCURSIONS.

REPORT FOR 1886.

During the Summer of 1886 Two Excursions were made by the Society.

Saturday, June 19th.....Gracedieu.....Mr. T. Knowles.

„ August 11th.....Chatsworth Woods.....Mr. F. E. Lott.

Both these were well attended.

PROGRAMME OF EXCURSIONS

FOR 1887.

PROVISIONAL DATE.	DESTINATION.	LEADER.
Saturday, June 4th	{ Ticknall, Castle Donington and Melbourne. }	{ Mr. Horace T. Brown Mr. T. Knowles. }
„ July 9th	{ Milton Fishponds, Ingleby and Anker Church. }	{ Mr. J. O'Sullivan. „ Horace T. Brown. }
„ July 30th.....	Charnwood Forest.....	{ Mr. R. Harrison. „ Horace T. Brown. }
„ Aug. 20th.....	Derbyshire.....	Mr. F. E. Lott.
„ Sept. 3rd.....	Newstead Abbey.....	Mr. T. Martin.
„ Sep. 17th.....	Burton Sewage Farm.....	Mr. F. Tompson.

RULES.

1.—That this Society be called the “BURTON-ON-TRENT NATURAL HISTORY AND ARCHÆOLOGICAL SOCIETY,” having for its object the promotion and encouragement of the practical study of Natural History, Archæology, and General Science.

2.—That the Officers of the Society consist of a President, two or more Vice Presidents, Treasurer, two Secretaries, Curator and Librarian, and a Committee of not less than six Members—three to form a quorum; the above officers to retire annually, but to be eligible for re-election.

3.—That a General Meeting be held not later than the month of March in each year for the purpose of electing Officers for the ensuing year, and transacting any other business which may be brought before it.

4.—That Candidates may be proposed and seconded at any Committee Meeting; if accepted, their names with proposer and seconder to be posted for one month in the rooms used for General Meetings by the Society.

5.—That the Society commences its year with January 1st. That an annual subscription of five shillings be paid by each member *in advance*, and that all members whose subscriptions are six months in arrear be considered to have forfeited their privileges as members of the Society; that all members who have not given notice to the Treasurer or one of the Secretaries of their intention to retire before the Annual General Meeting in March, shall be held responsible for the current year's subscription.

6.—That the Committee may recommend as Honorary Members any persons distinguished for scientific attainments, or who may have in any special manner advanced the interests of the Society.

THE WEATHER OF 1886.

Though not characterized by any extraordinary feature, the past year is still remarkable for the severely cold weather of the first four months, and for the heavy rainfall of May.

Snow fell in the middle of April, and frosts continued to 3rd May. The mean temperature of February was no less than 9·6° lower than that of the corresponding month last year, and a difference on the same side existed between the same means for the months of January, March, and April. The extreme severity of the Spring is markedly shown by the effect on vegetation. From the following table of the times of leafing and flowering during the last four years of the following plants, it will be seen that plant life was retarded from one to seven weeks in comparison with 1885, which itself had a late spring, as will be seen by comparing it with 1883 and 1884.

Plant.	1883.	1884.	1885.	1886.
COLTSFOOT, flower	Feb. 14	Feb. 10	Feb. 28.	Mar. 6.
LESSER CELANDINE, leaf	—	—	Jan. 19.	Mar. 6.
HAWTHORN, leaf	Feb. 21	Feb. 17	Mar. 9	Mar. 28
VIOLET, flower	—	Feb. 29	Mar. 14	April 3
PRIMROSE, flower.....	Feb. 13	Feb. 29	Mar. 15	April 3
DOG'S MERCURY, flower.....	Feb. 1	Jan. 26	Feb. 21	April 4

This table, it should be mentioned, has been compiled from the observations of the REV. C. F. THORNEWILL, MR. T. GIBBS, and MR. F. W. ATKINS, in addition to those of myself.

Compared with the two previous years the summer was cold, the mean temperatures of none of the months comprised in that period attaining to the heights of those two former years. The Autumn, on the contrary, was warm, each month having a mean temperature higher than that of the same months of 1885, October, indeed, being marked by a difference of 6·6.

The first frost of the Winter was on the 23rd September, three days earlier than the preceding year. In spite, however, of this forecast of a severe winter, there was not a single frost during October, and only seven during November. With the beginning of December the aspect of the scene was altered, severe frosts commenced their reign, and even on the third night the low temperature of 16 degrees was recorded.

In spite of these deviations from the ordinary run, the mean temperature does not materially differ from the mean of the last few years.

In the rainfall, however, the past year possesses its chief remarkable feature. It has been the wettest year since the wet year of 1882, when 38 inches fell, and its amount exceeds that of the previous year by 5·79 inches, and the mean of the past 12 years

June	20.	—H. oleracea em. from pupa	..	..	..	C.F.T.
"	20.	—A. megacephala taken	..	..	..	C.F.T.
"	22.	—H. rurea, A. unanimitis, A. exclamationis taken	..	..	..	C.F.T.
"	23.	—L. marginata taken (Bretby)	..	..	..	C.F.T.
"	24.	—E. absynthiata em. from pupa	..	..	..	C.F.T.
"	24.	—A. segetum, E. sambucalis taken	..	..	..	C.F.T.
"	25.	—H. hectus, M. albicillata, E. palumbaria taken (Bretby)	..	..	..	C.F.T.
"	26.	—Ova of S. certata found (Appleby)	..	..	..	C.F.T.
"	28.	—Ova of C. propugnata hatched	..	..	..	C.F.T.
"	30.	—M. typica em. from pupa	..	..	..	C.F.T.
July	1.	—E. plicata em. from pupa	..	..	..	C.F.T.
"	1.	—M. arcens, P. forficatis, X. polyodon taken	..	..	..	C.F.T.
"	3.	—N. augar em. from pupa	..	..	..	C.F.T.
"	3.	—M. persicaria (Burton)	..	..	..	J.E.N.
"	3.	—Meadow Sweet fl (Drakelow)	..	..	..	J.G.W.
"	5.	—T. w-album merged	..	..	..	J.E.N.
"	6.	—C. populata em. from pupa	..	..	..	C.F.T.
"	8.	—T. w-album em. from pupa	..	..	..	C.F.T.
"	26.	—P. falcula, M. margaritaria, M. rubiginata, P. acanthodactylus taken (Cannock Chase)	..	..	..	C.F.T.
"	27.	—A. aglaia, T. firmata, l. of C. vinula, S. populi, A. myrtilli taken (Cannock Chase)	..	..	..	C.F.T.
"	27.	—M. arcuosa taken (Drakelow)	..	..	..	J.E.N.
"	28.	—S. lutealis taken (Rugeley)	..	..	..	C.F.T.
"	28.	—G. papilionaria, P. lacertula, N. dictaeoides, E. lucipara, N. brunnea, E. nanata, E. minutata taken (Cannock Chase)	..	..	..	C.F.T.
Aug.	3.	—N. xanthographa emerged	..	..	..	J.E.N.
"	4.	—X. cerago em. from pupa	..	..	..	C.F.T.
"	7.	—C. davus, C. imbutata taken (Chartley Moss)	..	..	..	C.F.T.
"	11.	—C. xerampelina em. from pupa	..	..	..	C.F.T.
"	16.	—X. cerago, p. of N. typhæ, l. of D. capsincola taken (Willington)	..	..	..	C.F.T.
"	18.	—L. of A. megacephala taken	..	..	..	C.F.T.
"	21.	—C. graminis, C. testata, C. populata, l. of E. pulchellata, p. of N. typhæ taken (Cannock Chase)	..	..	..	C.F.T.
"	22.	—A. tragopogonis taken	..	..	..	C.F.T.
"	23.	—A. incanaria taken	..	..	..	C.F.T.
"	24.	—C. xerampelina, l. of A. psi taken	..	..	..	C.F.T.
"	25.	—H. popularis, L. testacea, T. orbona, H. micacea, C. unidentaria taken (Rugeley, at light)	..	..	..	C.F.T.
"	26.	—C. solidaginis, l. of A. leporina, N. dromedarius, E. nanata, E. pulchellata taken (Cannock Chase.)	..	..	..	C.F.T.
"	26.	—N. typhæ em. from pupa	..	..	..	C.F.T.
"	30.	—X. gilvago, em. from pupa	..	..	..	C.F.T.
"	30.	—Lime leaves falling rapidly (Parish Churchyard)	..	..	..	J.G.W.
"	31.	—P. stratiotalis, l. of D. capsincola taken (Willington)	..	..	..	C.F.T.
"	31.	—E. apiciaria taken	..	..	..	C.F.T.
"	31.	—Sambucus ebulus fl (Tutbury)	..	..	..	J.E.N.
Sept.	1.	—P. lignata taken at light	..	..	..	C.F.T.
"	1.	—Ova of A. incanaria hatched	..	..	..	C.F.T.
"	6.	—L. of A. unanimitis taken	..	..	..	C.F.T.
"	7.	—L. of S. populi taken	..	..	..	C.F.T.
"	11.	—H. protea, l. of A. tridens taken (Bretby)	..	..	..	C.F.T.
"	11.	—A. tragopogonis taken (Cannock Chase)	..	..	..	J.E.N.
"	11.	—V. atalanta taken (Cannock Chase)	..	..	..	J.E.N.
"	11.	—Pupæ of N. typhæ taken	..	..	..	J.E.N.
"	14.	—E. cervinaria em. from pupa	..	..	..	C.F.T.
"	14.	—V. io A. tragopogonis taken	..	..	..	C.F.T.

July 16.—	S. satellitia em. from pupa	...	...	...	C. F. T.
„ 17.—	L. of S. populi, D. vinula, N. dictæa, P. faleula, P. lacertula, N. camelina, N. dictæoides, E. castigata, E. absynthiata, taken (Cannock Chase)	...	..	...	C. F. T.
„ 22.—	First Frost (30·5)	...	..	...	J. G. W.
„ 24.—	X. ferruginea taken	..	.	...	C. F. T.
„ 25.—	L. of E. lucipara taken	..	.	...	C. F. T.
„ 30.—	L. of E. castigata, albipunctata, trisignata taken (Repton Shrubs)	..	.	...	C. F. T.
Oct. 2.—	Cochicum autumnale fl., (Ingleby)	...	...	...	J. E. N.
„ 17.—	O. dilutata taken (Drakelow)	...	..	...	J. E. N.
„ 30.—	O. dilutata, C. brumata, H. defoliaria taken (Repton Shrubs)	...	..	...	C. F. T.

Staffordshire County Studies
Sample



LIBRARY.

NAME.	LIST OF BOOKS.	AUTHOR.
1 School Botany	<i>Lindley.</i>
2 Manual of Botany	<i>Balfour.</i>
3 Elements of Botany	<i>Balfour.</i>
4 Handbook of the British Flora	<i>Bentham.</i>
5 Elementary Botany	<i>Grueon.</i>
6 Useful Plants	<i>Johnson & Sowerby.</i>
7 Elements of Metallurgy	<i>Phillips.</i>
8 Elementary Course of Geology	<i>Ansted.</i>
9 Students' Elements of Geology	<i>Lyell.</i>
10 Introductory Text-Book of Geology	<i>Page.</i>
11 Advanced Text-Book of Geology	<i>Page.</i>
12 School Manual of Geology	<i>Jukes.</i>
13 Laws of Wind prevailing in Europe	<i>Lev.</i>
14 Elementary Geology	<i>Sketchley.</i>
15 Geology and Mineralogy	<i>Buckland.</i>
16 Manual of Geology	<i>Harrison.</i>
17 Popular History of the Aquarium	<i>Sowerby.</i>
18 The Aquarium	<i>Taylor.</i>
19 The Fresh Water Aquarium	<i>Hibberd.</i>
20 Mineralogy	<i>Ramsay.</i>
21 Butterflies and Moths—Vol. I	<i>Newman.</i>
22 " " Vol. II	<i>Newman.</i>
23 Manual of Butterflies and Moths	<i>Stainton.</i>
24 Notes on Collecting and Preserving Natural History Objects	<i>Stainton.</i>
25 British Coleoptera	<i>Spry and Shuckard.</i>
26 Modern Meteorology	<i>Lev.</i>
27 Nests and Eggs—Vol. I	<i>Morris.</i>
28 " " Vol. II	"
29 " " Vol. III	"
30 Lepidopterist's Guide	<i>Knaggs.</i>
31 British Shells	<i>Turton.</i>
Circle of the Sciences	<i>Orr.</i>
32 Vol. I., Organic Nature	...	
33 Vol. II " "	...	
34 Vol. III " "	...	
35 Vol. IV., Geology and Mineralogy	...	
36 Vol. V. " "	...	
37 Vol. VI., Elementary Chemistry	...	
38 Vol. VII., Practical Chemistry	...	
39 Vol. VIII., Mathematical Chemistry	...	
40 Vol. IX., Mechanical Philosophy	...	
41 Popular History of British Ferns	<i>Moore.</i>
42 British Mosses—Vol. I	<i>Tripp.</i>
43 " " Vol. II	"
44 Popular History of British Mosses	<i>Stark.</i>
45 Synopsis of British Mosses	<i>Hobkirk.</i>
46 Natural History of Selborne	<i>White.</i>
47 History of Tatenhill	<i>Upton.</i>
48 History of Uttoxeter	<i>Redfern.</i>