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THE YORKSHIRE MAYFLIES OR EPHemeroptera

Dibb, John R., 1945

The Yorkshire Mayflies or Ephemeroptera

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This results of the work of Yorkshire entomologists upon the Ephemeroptera are somewhat meagre and scattered, and there has been no published list of Yorkshire records since that of Percival and Whitehead in the *Entomologist's Monthly Magazine* for 1927. The order, so far as the publication of County records is concerned, was apparently entirely neglected until the publication of the Victoria County History in 1927, when record for any of the Mayflies appears therein. This does not mean, however, that many Yorkshire species were not known to occur in suitable localities. On the contrary, the fly-fishermen who practised their art in Yorkshire and who attached their own (non-scientific) names to the various species and separate names to adult males, females and sub-imagoes, probably possessed a wide knowledge of the distribution of a large number of species within the county many years before the entomologists commenced to publish records in their scientific journals.

It must always be borne in mind in dealing with the distribution of the Ephemeroptera that there are two main aspects to consider owing to the nature of the life history of this order of insects. Consideration number one is that the adult life is usually a very short one, sometimes not more than a day and rarely extending beyond a week or two. The exact date of appearance or capture of the adult is, therefore, a valuable piece of data to the systematist. Consideration number two is that many species take more than twelve months to pass through the whole of their aquatic nymphal stages, so that it becomes a matter of importance to note the approximate amount of growth as well as the date of occurrence in records of nymphs whenever this information is known. In so far as the nymph develops through changing its outer covering or pellicle, often between twenty and thirty times over a long period of growth, it is a matter of difficulty in ascertaining the exact stage a particular example has reached. In this connection and also in differentiating the specific

## THE YORKSHIRE MAYFLIES OR EPHEMEROPTERA

JOHN R. DIBB, F.R.E.S.

1. The Earlier Records.
2. Systematic List of Records.
3. Vice-County Check List.
4. Bibliography.

### I. THE EARLIER RECORDS

THE results of the work of Yorkshire entomologists upon the Ephemeroptera are somewhat meagre and scattered, and there has been no published list of Yorkshire records since that of Percival and Whitehead in the *Entomologist's Monthly Magazine* for 1927. The order, so far as the publication of county records is concerned, was apparently entirely neglected prior to the publication of the Victoria County History in 1907, as no record for any of the Mayflies appears therein. This does not mean, however, that many Yorkshire species were not known to occur in suitable localities. On the contrary, the fly-fishermen who practised their art in Yorkshire and who attached their own (non-scientific) names to the various species and separate names to adult males, females and sub-imagines, probably possessed a wide knowledge of the distribution of a large number of species within the county many years before the entomologists commenced to publish records in their scientific journals.

It must always be borne in mind in dealing with the distribution of the Ephemeroptera that there are two main aspects to consider owing to the nature of the life history of this order of insects. Consideration number one is that the adult life is usually a very short one, sometimes not more than a day and rarely extending beyond a week or two. The exact date of appearance or capture of the adult is, therefore, a valuable piece of data to the systematist. Consideration number two is that many species take more than twelve months to pass through the whole of their aquatic nymphal stages, so that it becomes a matter of importance to note the approximate amount of growth as well as the date of occurrence in records of nymphs whenever this information is known. In so far as the nymph develops through changing its outer covering or pellicle, often between twenty and thirty times over a long period of growth, it is a matter of difficulty in ascertaining the exact stage a particular example has reached. In this connection and also in differentiating the specific

characters attaching to the structure of the nymphs lies a very wide field of research for the student of the Ephemeroptera.

This small digression into the systematics of the order is deemed necessary as an illustration of the prime importance of making full and accurate record of place of capture, type of habitat, date of occurrence, sex (if known), stage reached (nymph [with indication of amount of growth], sub-imago or adult), whether on wing or at rest (if adult) and name of recorder, for it is on the basis of the initial recorded data that the value of the subsequent specialist's conclusions depends.

The only other lists of published records are those which have formed part of the reports upon the Y.N.U. excursions in *The Naturalist*, but some species have, in addition, been referred to as captured or noted in various biological, faunistic and systematic papers, which are more particularly referred to in the attached bibliography. The county must be considered a rich one in number of species, for out of a total number of 47 species in the latest British list 37 are contained in the systematic list of Yorkshire records below. The recent publication of keys to the British species by D. E. Kimmins (1942) provides a most useful synopsis together with some ecological notes and an introduction which is highly recommended to the would-be Ephemeropterist. In so far as this work was partly based upon material collected in the North of England it becomes of special value to Yorkshire collectors.

The bibliography hereunder includes reference to some standard works upon the Ephemeroptera as well as to those papers from which county records have been abstracted. Apart from a few MSS. records kindly provided by Mr. J. M. Brown, the records in this list which have not been published elsewhere are based upon specimens submitted to the writer for determination and for the most part the material is deposited in the entomological collections in the Yorkshire Museum, York. Unless otherwise stated the records refer to adult insects.

#### ABBREVIATIONS

C.A.	=C. Allen.	W.D.H.	=W. D. Hincks.
R.W.B.	=R. W. Butcher.	D.E.K.	=D. E. Kimmins.
W.G.B.	=W. G. Bainbridge.	E.P.	=E. Percival.
J.M.B.	=J. M. Brown.	H.W.	=H. Whitehead.
J.R.D.	=J. R. Dibb.	J.W.	=John Wood.
W.D.	=W. Doughty.	W.W.	=W. Withell.

## 2. SYSTEMATIC LIST OF RECORDS EPHEMEROPTERA

### Fam. EPHEMERIDÆ

#### 1. *EPHEMERA VULGATA* Linn.

Fishermen's name : The Mayfly.

(On the wing : June and July.)

V.C. 63.—Keighley, The Canal : 1/7/32, J.W.; 4♂♂,  
19/6/33, J.W.

V.C. 64.—Skipton (west of), Leeds and Liverpool Canal :  
6/6/25-27 to 30/6/25-27, E.P. and H.W.,  
1927; Winterburn Beck : Nymphs, 1/8/32,  
J.M.B., 1932.

Bentham, River Wenning : 2 Nymphs,  
8-10/6/35, C.A.

V.C. 65.—Semmerdale : 28/7/35, J.M.B.

#### 2. *EPHEMERA DANICA* Müll.

Fishermen's names : Green Drake (sub-imago), Grey  
Drake (♀ imago), Black Drake (♂ imago), Spent  
Gnat.

(On the wing : Late May to mid July.)

Widely distributed and very abundant in  
Yorkshire : E.P. and H.W., 1927.

V.C. 62.—Robin Hood's Bay, Ramsdale : 25/6/37, J.M.B.,  
1938a; Oxbank Wood : 1/7/37, J.M.B.,  
1938a; Brockets : 14/6/38, J.M.B., 1941;  
Flyinghall, 17/6/39, J.M.B., 1941.

V.C. 64.—Broughton, Bilsdale Beck : Nymphs, 7-9/4/28,  
E.P., 1928; River Leven : Nymphs,  
7-9/4/28, E.P., 1928.

Bramham : Nymphs, 2/31, J.R.D. and W.D.H.,  
1932.

Leeds, Meanwood Beck : Nymphs, 11/5/31,  
J.R.D. and W.D.H., 1932; Swarming,  
16/6/32, W.W.; Roundhay Park : 4/6/33,  
J.R.D.

Harewood, Harewood Bridge : ♂♂ ♀♀, 13/6/32,  
J.R.D.; 31/5/33, J.R.D.

Ripon, Skell Valley : 1♂, 23/6/34, W.D.H.,  
1934.

Malham : 3/7/35, J.M.B.

Aberford : 20/5/36, W.D.H., 1936; 21/6/41,  
J.R.D.

Horton-in-Ribblesdale, Ling Ghyll : 1♀,  
2/7/42, W.D.H.

V.C. 65.—Semerdale, Semerwater, River Bain : Nymphs,  
21/5/34, C.A., 1934.

Fam. LEPTOPHLEBIIDÆ

3. *LEPTOPHLEBIA MARGINATA* (Linn.).

(On the wing : Mid May to late June.)

V.C. 63.—Doncaster, Askern : Nymphs, 1/5/26, H.W.,  
1926.

Keighley, Crimsworth Dene : 1♂, 19/5/32;  
J.W.

V.C. 64.—Ripley, River Nidd, Jugger Beck : 5 and 6/25-27  
E.P. and H.W., 1927.

Leeds, Scarcroft Lake : 5 and 6/25-27, E.P. and  
H.W., 1927; Meanwood Beck : 5 and  
6/25-27, E.P. and H.W., 1927.

4. *LEPTOPHLEBIA VESPERTINA* (Linn.).

Fishermen's name : Claret Dun (sub-imago).

(On the wing : Late May and June).

V.C. 64.—Leeds, Scarcroft : 6/25-27, E.P. and H.W.,  
1927.

Austwick, Austwick Moss : 6/25-27, E.P. and  
H.W., 1927.

V.C. 65.—West Tanfield, River Ure : 1♂ sub-imago,  
29/5/32, J.R.D.

5. *PARALEPTOPHLEBIA SUBMARGINATA* (Steph.).

Fishermen's name : Turkey Brown (sub-imago).

(On the wing : Early May to mid July.)

Widely distributed in West Yorkshire : 1/5 to  
16/6/25-27, E.P. and H.W., 1927.

V.C. 62.—Robin Hood's Bay, Brockets : 3/7/39, J.M.B.,  
1941.

V.C. 63.—Sheffield, Ecclessall Wood : 21/6/35, J.M.B.

V.C. 64.—Grassington, Grass Wood, Dibb Scar : Sub-  
imagines under stones, 4-6/6/27, E.P., 1927.

River Ribble : 12/5/31, W.G.B., D.E.K., 1932.

Leeds, Meanwood Beck : 1♀ sub-imago, J.R.D.

and W.D.H., 1932; Scarcroft Lake : 2♀♀,

30/5/31, J.R.D. and W.D.H., 1932.

Pateley Bridge : 1♀, 22/5/32, W.D.

Horton-in-Ribblesdale : 20/5/37, J.M.B. ; Ling

Ghyll : 1♀ sub-imago, 23/6/42, W.D.H.

V.C. 65.—Dent : 3-5/6/33, J.M.B., 1933a.

Semerdale, Semerwater : Nymphs, 21/5/34,  
J.M.B., 1934.

6. *PARALEPTOPHLEBIA CINCTA* (Retz.).

(On the wing : June to October.)

V.C. 62.—Hovingham, Marr's Beck : Swarms, 3-5/8/35,  
J.M.B., 1935b.

Robin Hood's Bay, Brockets : 5/10/37, J.M.B.,  
1938a.

V.C. 64.—Ripley, River Nidd : 9/6 to 9/7/25-27, E.P. and  
H.W., 1927.

Harewood Bridge, River Wharfe : 9/6 to  
9/7/25-27, E.P. and H.W., 1927.

Hebden, River Wharfe : 11/8/31, W.G.B.,  
D.E.K., 1932.

V.C. 65.—Semerdale, Semerwater : 9 and 10/34, J.M.B.,  
1935a.

7. *HABROPHLEBIA FUSCA* (Curt.).

(On the wing : May to September.)

V.C. 61.—Cottingwith, River Derwent : 1♂, 2/8/32,  
W.D.H.

V.C. 62.—Hovingham, Marr's Beck : 3-5/8/35, J.M.B.,  
1935.

Helmsley District : Early Sept./35, J.M.B.,  
1935.

Robin Hood's Bay, Brockets : 2 and 7/7/37,  
J.M.B., 1938a.

Pickering, Pickering Beck : 2/8/41, H.W., 1941.

V.C. 64.—Ripley, River Nidd : 13/6 to 2/8/25-27, E.P.  
and H.W., 1927.

Austwick, Fen Beck : 13/6 to 2/8/25-27, E.P.  
and H.W., 1927.

Bell Busk, River Aire : 13/6 to 2/8/25-27, E.P.  
and H.W., 1927.

Upper Wharfedale, Swarth Gill : 13/6 to  
2/8/25-27, E.P. and H.W., 1927.

Leeds, Roundhay Gorge : 1♂, 15/8/31, W.D.H. ;  
Meanwood : 1♀, 6/33, W.D.H. ; Roundhay  
Park : 1♂, 11/8/38, J.R.D. and W.D.H.

York, River Foss : ♂♂ ♀♀, 10/6/33, J.R.D.

Collingham, Linton Common : 1♂ 1♀, 15/7/33,  
J.R.D.

Ripon, River Skell : ♂♂ ♀♀, 7/8/33, J.R.D. and  
W.D.H.

Malham : 23/7/35, J.M.B.

Bolton Percy : 25/5/43, W.D.H., 1943.

V.C. 65.—Semerdale, Semerwater, River Bain : Nymphs,  
21/5/34, J.M.B., 1934 ; Semerwater : 8/34,  
J.M.B., 1935a.

## Fam. EPHEMERELLIDÆ

## 8. EPHEMERELLA IGNITA (Poda.).

Fishermen's names : Blue Winged Olive (sub-imago),  
Sherry Spinner (imago).

(On the wing : June to September.)

Widely distributed and very abundant in York-  
shire, 1925-6 to 1929/9/25-27, E.P. and H.W.,  
1927.

V.C. 61.—Pocklington, Kilwick Percy and Millington :  
1-3/8/36, J.M.B., 1936a.

V.C. 62.—Sandsend, Egton Bridge : Swarming, 17/9/36,  
J.M.B., 1937a.

Robin Hood's Bay, Brockets : 2 and 7/7/37,  
J.M.B., 1938a ; 3/7/39, J.M.B., 1941.

Pickering, Pickering Beck : 2/8/41, H.W., 1941.

V.C. 63.—Keighley, Homehouse Wood : ♂♂ abundant, 28  
and 30/8/32, J.W.

Sheffield, Wyming Brook : 14/9/37, J.M.B.

V.C. 64.—Osmotherley, Oak Dale Beck : Nymphs numer-  
ous, 1-3/8/31, J.M.B., 1931.

Leeds, Scarcroft : ♂♂ ♀♀ abundant, 6/8/31,  
J.R.D. and W.D.H. ; Roundhay : 30/6/33,  
J.R.D.

Ribblesdale, River Ribble : 8/8/31, W.G.B.,  
D.E.K., 1932.

Skipton, Winterburn Beck : Nymphs, 1/8/32,  
J.M.B., 1932 ; 1 ♀, 1/8/32, J.W.

Malham, 28/8/32 and 23/7/35, J.M.B.

Grassington, 7/34, J.M.B.

Bentham, River Greta : 4 Nymphs, 8-10/6/35,  
C.A.

Settle, River Ribble : 19/8/43, D.E.K., 1943.

V.C. 65.—Semerdale : 7/34, J.M.B.

## 9. EPHEMERELLA NOTATA Eaton.

(On the wing : June to early August.)

V.C. 64.—Ripley, River Nidd : June, 1925-27, E.P. and  
H.W., 1927.

Grassington, River Wharfe : June, 1925-27,  
E.P. and H.W., 1927.

Ripon, River Skell : 7/8/33, J.R.D. and  
W.D.H. ; 23/6/34, W.D.H., 1934.

Cowthorpe : 17/6/32, W.D.

## Fam. CAENIDÆ

## 10. BRACHYCERCUS HARRISELLA Curt.

(On the wing : June and July.)

V.C. 64.—Boroughbridge, River Ure, South Bank : 2 dead  
imagines, 2/8/31, J.R.D. and W.D.H., 1932.

V.C. 65.—West Tanfield : Sub-imaginal pellicles, 2/8/31,  
J.R.D. and W.D.H., 1932.

Boroughbridge, River Ure, North Bank : 1 ♀,  
27/6/42, W.D.H., J.R.D., 1944.

11. *CAENIS MACRURA* Steph.

Fishermen's names : White Midge, Angler's Curse.

(On the wing : May and June.)

V.C. 63.—Doncaster, Askern : Nymphs, 1/5/26, H.W.,  
1926.

V.C. 64.—Garforth, Parlington Park Reservoir : June,  
1925-27, E.P. and H.W., 1927.  
Harewood, Harewood Bridge : June, 1925-27,  
E.P. and H.W., 1927.

12. *CAENIS HORARIA* (Linn.).

Fishermen's names : White Midge, Angler's Curse.

(On the wing : Late June to August.)

V.C. 63.—Keighley, Canal Bank : 2 ♀♀ 1 ♂, 21/8/33,  
J.W.

V.C. 64.—Ripon, River Skell : 23/6/34, W.D.H., 1934.

13. *CAENIS RIVULORUM* Eaton.

Fishermen's Names : White Midge, Angler's Curse.

(On the wing : June and July.)

V.C. 64.—Austwick, Austwick Beck : June, 1925-27, E.P.  
and H.W., 1927.

Burnsall : June and July, 1931, W.G.B.,  
D.E.K., 1932.

Fam. BAËTIDÆ

14. *BAËTIS BIOCULATUS* (Linn.).

Fishermen's name : Pale Watery Dun.

(On the wing : Mid May to mid September.)

Widely distributed and very abundant in York-  
shire : 17/6 to 19/9/25-27, E.P. and H.W., 1927.

V.C. 61.—Driffield : 26/10/30, H.W., D.E.K., 1932.

V.C. 64.—Grassington, Dibb Scar : Nymphs, 4-6/6/27,  
E.P., 1927.

Broughton, Bilsdale Beck : Nymphs, 7-9/4/28,  
E.P., 1928 ; River Leven : Nymphs, 7-9/4/28,  
E.P., 1928.

Harewood, Harewood Bridge : ♂♂ ♀♀ very  
abundant, 13/6/32, J.R.D. and W.D.H.

Leeds, Roundhay : 1 ♀, 11/8/38, J.R.D. and  
W.D.H.

Ripon, River Skell : 23/6/34, W.D.H., 1934.

Aberford : 30/5/36, W.D.H., 1936.

V.C. 65.—West Tanfield : 2/8/31, J.R.D. and W.D.H.,  
1932.  
Dent : 3-5/6/33, J.M.B., 1933a.  
Semerdale, River Bain : 9/34, J.M.B., 1935a.

15. *BAËTIS SCAMBUS* Eaton.

Fishermen's Name : Pale Watery Dun.

(On the wing : Mid June to late August.)

V.C. 63.—Keighley, Ponden Wood : 2 ♀♀, 19/8/32, J.W. ;  
Homehouse Wood : 1 ♀, 28/8/32, J.W.

V.C. 64.—Leeds, Roundhay : 1 ♀, 11/8/38, J.R.D. and  
W.D.H.

V.C. 65.—Dent : 3/6/33, J.M.B., 1933a.

16. *BAËTIS VERNUS* Curt.

(On the wing : Early June to late August.)

V.C. 63.—Keighley : 2 ♀♀, 10/6/35, J.W.

V.C. 64.—Leeds, Shadwell, Blackmoor : 1 ♀, 24/8/38,  
J.R.D. and W.D.H.

17. *BAËTIS TENAX* Eaton.

Fishermen's name : Olive Dun.

(On the wing : July and August.)

V.C. 63.—Sheffield, Ecclessall Wood : 24/9/35, J.M.B. ;  
Wyming Brook : 14/9/37, J.M.B.

V.C. 64.—Ilkley, Moorland Stream : 7 and 8/25-27, E.P.  
and H.W., 1927.

Upper Wharfedale, Swarth Gill : 7 and 8/25-27,  
E.P. and H.W., 1927.

Harewood, Harewood Bridge : 22/6/31, J.R.D.  
and W.D.H., 1932.

Ripon, Skell Valley : ♂ ♀, 23/6/34, W.D.H.,  
1934.

Malham : 3/7/35, J.M.B.

V.C. 65.—West Tanfield : 2/8/31, J.R.D. and W.D.H.,  
1932.

Semerdale, River Bain : 9/34, J.M.B., 1935a.

18. *BAËTIS BUCERATUS* Eaton.

Fishermen's name : Olive Dun.

(On the wing : April.)

V.C. 64.—Littondale, River Skirfare : 3/4/25-27, E.P.  
and H.W., 1927.

19. *BAËTIS RHODANI* (Pict.).

Fishermen's names : Red Spinner (imago), Large Dark  
Olive (sub-imago).

(On the wing : <sup>1</sup>Mid February to late October.)

Widely distributed and very abundant in York-  
shire : 16/2 to 11/10/25-27, E.P. and H.W.,  
1927.

<sup>1</sup> Known to fly in mid-winter (Eaton, 1888).

- V.C. 61.—Pocklington and Millington : 1-3/8/36, J.M.B., 1936a.
- V.C. 62.—Sandsend, Egton Bridge : 17/9/36, J.M.B., 1937a.  
Robin Hood's Bay, Little Beck : Subimago, 15-17/4/33, J.M.B., 1933b ; Oxbank Wood : 1/7/37, J.M.B., 1938a ; Ramsdale : 14/10/37, J.M.B., 1938a.
- V.C. 63.—Sheffield, Ecclesall Wood : 14/7/37, J.M.B. ; Ford Valley : 17/3/38, J.M.B., 1938b.  
Keighley, Homehouse Wood : 13/5/39, J.W. ; 1 ♀, 8/6/41, J.W.
- V.C. 64.—Grassington, Hebden Beck : Nymphs, 4-6/6/27, E.P., 1927.  
Broughton, River Leven : Nymphs, 7-9/4/28, E.P., 1928.  
Birstwith : 6/4/31, J.R.D. and W.D.H., 1932.  
Leeds, Adel Willows : 6/5/31, J.R.D. and W.D.H., 1932 ; Meanwood Beck : 11/5/31, J.R.D. and W.D.H., 1932 ; Scarcroft : 26/5/32, J.R.D. and W.D.H. ; Shadwell : 25/6/41, J.R.D. ; Roundhay Gorge : 4♂♂ and a swarm, 27/6/31, J.R.D. and W.D.H. ; Shadwell : 13/5/42, W.D.H.  
Harewood, Harewood Bridge : Imagines and subimagines, 8/5/31, J.R.D. and W.D.H.  
Gisburn, River Ribble : 8/31, W.G.B., D.E.K., 1932.  
Pateley Bridge : 22/5/32, W.D.  
Summerbridge, Low Laithe : 7/5/32, W.D.  
Aberford : 30/5/36, W.D.H., 1936 ; 21/6/41, J.R.D.  
Ripon, Queen Mary's Dub : 17/6/39, W.D.H., 1939.  
Littondale, Litton Foss : 31/5/42, D.E.K., 1943.  
Horton-in-Ribblesdale : ♀♀, 26/5/42, W.D.H.  
Pen-y-ghent : 21/8/43, D.E.K., 1943.
- V.C. 65.—West Tanfield : 29/5/32, J.R.D. and W.D.H., 1932.  
Dent : 3/6/33, J.M.B.  
Buckden : 23/10/34, J.M.B.  
Semerdale, River Bain : 9/34, J.M.B., 1935a.  
Marsett : 28/4/35, J.M.B.
20. *BAËTIS PUMILUS* (Burm.).  
Fishermen's names : Jenny Spinner (♂ imago), Iron Blue Dun (subimago).  
(On the wing : Mid-May to late September.)

Widely distributed and very abundant in Yorkshire, 16/5 to 19/9/1925-27, E.P. and H.W., 1927.

V.C. 62.—Robin Hood's Bay, Ramsdale : 14/10/37,  
J.M.B., 1938a ; Oxbank Wood : 1/7/37,  
J.M.B., 1938a ; Brockets : 28/9/37 and  
5/10/37, J.M.B., 1938a ; Maw Wyke : 12/6/38,  
J.M.B., 1941.

Pickering, Pickering Beck : 2/8/41, H.W., 1941.

V.C. 64.—Grassington, Dibb Scar : Nymphs, 4-6/6/27,  
E.P., 1927 ; Hebden Beck : 4-6/6/27, E.P.,  
1927.

Addingham : ♂♂, 31/5/30, J.R.D.

Harewood, Harewood Bridge : ♂♂ ♀♀, 18/5/31  
and 22/6/31, J.R.D. and W.D.H. ; 28/5/32,  
J.R.D.

Walshford Bridge, River Nidd : ♂♂, 2/8/31,  
W.D.H., J.R.D. and W.D.H., 1932.

Beamsley Beacon : 6 ♂♂, 5/7/31, J.R.D.

Gisburn, River Ribble : 8/8/31, W.G.B.,  
D.E.K., 1932.

Horton-in-Ribblesdale, Brans Ghyll : ♂.  
30/6/42, W.D.H. ; River Ribble : ♂ ♀,  
6/7/42, W.D.H.

Littondale, Litton Foss : 20/8/43, D.E.K., 1943.

Settle, River Ribble : 21/8/43, D.E.K., 1943.

V.C. 65.—Leyburn, Wensley and Aysgarth : 23-25/5/31,  
H.W., R.W.B., and J.M.B., H.W., 1931.

West Tanfield : 2/8/31, J.R.D. and W.D.H.,  
1932 ; Tanfield : Imagines and subimagines,  
11/5/35, J.M.B., 1935c.

Dent, 3-5/6/33, J.M.B., 1933a.

Semerdale, Semerwater : 24/5/34, J.M.B., 1934 ;  
River Bain : 9/34, J.M.B., 1935a.

Hawes, Aysgill and Mossdale : 30-31/5/36,  
J.M.B., 1936b.

## 21. CENTROPTILUM LUTEOLUM (Müll.).

Fishermen's name : Pale Watery Dun.

(On the wing : Mid-May to late August).

V.C. 62.—Hovingham, Marr's Beck : 3-5/8/35, J.M.B.,  
1935b.

Helmsley District : Early September, 1935,  
J.M.B., 1935d.

Robin Hood's Bay, Flyinghall : 12/9/36,  
J.M.B., 1937a ; Oxbank Wood : 1/7/37,  
J.M.B., 1938a.

V.C. 64.—Austwick, Fen Beck : 19/5 to 18/8/1925-27,  
E.P. and H.W., 1927.

Gargrave and Bell Busk, River Aire : 19/5-18/8/25-27, E.P., and H.W., 1927.  
Grassington, River Wharfe : 19/5-18/8/25-27, E.P. and H.W., 1927; Dibb Scar : Nymphs abundant, 4-6/6/27, E.P., 1927.  
Hubberholme, River Wharfe : 19/5-18/8/25-27, E.P. and H.W., 1927.  
Ripley, River Nidd : 19/5-18/8/25-27, E.P. and H.W., 1927.  
Ripon, Skell Valley : 7/8/33, J.R.D. and W.D.H.; River Skell : 23/6/34, W.D.H., 1934.  
Harewood, River Wharfe : 18/5/31, J.R.D. and W.D.H.; 1 ♀, 22/6/31, J.R.D. and W.D.H., 1932.  
Leeds, Meanwood Valley : 4/6/31, J.R.D. and W.D.H., 1932; Scarcroft Lake : 6/8/31, J.R.D. and W.D.H., 1932; Morley : 1 ♂, 25/8/35, J.W.

V.C. 65.—Leyburn : 23-5/5/31, H.W., R.W.B. and J.M.B. H.W., 1931.  
Dent : 3-5/6/33, J.M.B., 1933a.  
Semerdale, Semerwater : August and September, 1934, J.M.B., 1935a; River Bain : August and September, 1934, J.M.B., 1935a.

22. *CENTROPTILUM PENNULATUM* Eaton.  
Fishermen's name : Pale Watery Dun.  
(On the wing : July to late September.)  
V.C. 62.—Robin Hood's Bay, Flyinghall : 12/9/36, J.M.B. 1937a.  
Sandsend, East Row Beck : 20/9/36, J.M.B., 1937a; West Row Beck : 22/9/36, J.M.B., 1937a.

V.C. 64.—Walshford Bridge, River Nidd : July, 1925-27, E.P. and H.W., 1927.  
Upper Wharfedale, Swarth Gill : July, 1925-27, E.P., and H.W., 1927.  
Malham : 28/8/32, 4/7/35, J.M.B.  
Littondale, Litton Foss : 20/8/43, D.E.K., 1943.

V.C. 65.—Semerdale, River Bain : 9/34, J.M.B., 1935a.

23. *CLOEON DIPTERUM* (Linn.).  
(On the wing : June and July.)

V.C. 61.—Pocklington, Kilnwick Percy : 1-3/8/36, J.M.B., 1936a.

Sheffield, Ecclessall Wood : 20/5/35, J.M.B.

- V.C. 64.—Leeds, Scarcroft Lake : June, 1925-27, E.P. and H.W., 1927 ; Meanwood Beck : June, 1925-27, E.P. and H.W., 1927 ; Shadwell, Blackmoor : 1 ♀, 25/6/31, J.R.D. and W.D.H. 1932.  
 York, Askham Bog : ♂♂ ♀♀, 13/6/31, J.R.D. and W.D.H., 1932 ; Acomb Brick Ponds : Nymphs, 6/35, C.A.  
 Ripon, River Skell : 7/8/33, J.R.D. ; 23/6/34, W.D.H., 1934.  
 Bentham, River Greta : Nymphs, 8-10/6/35, C.A.
24. *CLOËON SIMILE* Eaton.  
 (On the wing : June to mid-September.)
- V.C. 63.—Ryhill, Ryhill Reservoir : 26/6/32, J.M.B.  
 V.C. 64.—High Bentham, Pond : Nymphs, 8-10/6/35, C.A.
25. *PROCLOËON RUFULUM* (Müll.).  
 (On the wing : Mid-May to mid-September.)
- V.C. 62.—Sandsend, Egton Bridge : 17/9/36, J.M.B., 1937a ; East Row Beck and West Row Beck : 20/9/36, J.M.B., 1937a  
 Pickering, Pickering Beck : 2/8/41, H.W., 1941.  
 V.C. 63.—Ryhill, Ryhill Reservoir : Late instar nymphs, 1/5/32, J.R.D. and W.D.H. ; swarming, 25/6/32, J.R.D. and W.D.H.  
 V.C. 64.—Austwick, Fen Beck and Austwick Beck : 9/6-12/9/25-27, E.P. and H.W., 1927.  
 Knaresborough, River Nidd : 9/6-12/9/25-27, E.P. and H.W., 1927.  
 Harewood Bridge and Collingham, River Wharfe : 9/6-12/9/25-27, E.P. and H.W., 1927.  
 Leeds, Scarcroft Lake : ♀♀, 6/8/31, J.R.D. and W.D.H., 1932.
- V.C. 65.—Semerdale, River Bain : 9/34, J.M.B., 1935a.

Fam. SIPHLONURIDÆ *Sc.*

26. *SIPHLONURUS ARMATUS* Eaton.  
 (On the wing : June and July.)
- V.C. 64.—Leeds, Scarcroft Lake : June and July, 1925-27, E.P. and H.W., 1927.  
 Ripley, Ripley Lake : June and July, 1925-27, E.P. and H.W., 1927.

27. *SIPHONURUS LACUSTRIS* Eaton.  
(On the wing : June and July.)  
V.C. 63.—Sheffield, Wyming Brook : 22/9/37, J.M.B. (?) nymph).  
V.C. 64.—Upper Wharfedale, Swarth Gill : July, 1925-27,  
E.P. and H.W., 1927.  
Broughton, Baysdale Beck : Nymphs, 7-9/4/28,  
E.P., 1928.  
Leeds, Meanwood Beck : 1 ♀, 4/3/31, J.R.D.  
and W.D.H., 1932.
28. *AMELETUS INOPINATUS* Eaton.  
(On the wing : Mid-May to mid-June.)  
V.C. 64.—Malham : 1♂, 14/6/31, J.M.B., 1935e and  
1937b ; River Aire : Nymphs, 2/7/35, J.M.B.,  
1935e and 1937b.  
Horton-in-Ribblesdale, Selside : Nymphs,  
23/4/35, 1♂, 19/5/37, J.M.B., 1937b ; Late  
instar nymphs, 1/7/42, W.D.H., J.R.D., 1944.  
V.C. 65.—Hawes, Buttertubs Pass : Nymphs, 27/4/35.  
J.M.B., 1937b.  
Keld, River Swale : Nymphs, 15/5/37, C.A. and  
J.M.B., J.M.B., 1937b ; Subimago, 15/5/37,  
H.W., J.M.B., 1937b.

Fam. ECDYONURIDÆ

29. <sup>1</sup>*RHITHROGENA SEMICOLORATA* (Curt.).  
Fishermen's name : Yellow Upright (♂ imago).  
(On the wing : April to September).  
Widely distributed and very abundant in  
Yorkshire : 6/5 to 22/8/1925-27, E.P. and  
H.W., 1927.  
V.C. 62.—Robin Hood's Bay, Flyinghall : 20/6/36,  
22/9/36 ; Oxbank Wood : 14/9/36, J.M.B.,  
1937a ; Howdale : 12/6/37 ; Ramsdale :  
14/6/37 ; Flyingdale : 7/7/37 ; Oxbank  
Wood : 3/7/37, J.M.B., 1938a ; Brockets :  
26/4/38 ; Maw Wyke : 12/6/38, J.M.B., 1941.  
Sandsend, Egton Bridge : 17/9/36, J.M.B.,  
1937a.  
V.C. 63.—Sheffield, Ecclessall Wood : 26/5/33, 10/6/37,  
J.M.B.

<sup>1</sup> The possibility must not be discounted that some of the records of early dates for this species might be more correctly applied to *R. haarupi* Esb.-Pet., as the synonymy of the closely applied species has only recently been clearly established.

- V.C. 64.—Broughton, Bilsdale Beck : 7-9/4/28, E.P., 1928 ; River Leven : 7-9/4/28, E.P., 1928.  
 Horton-in-Ribblesdale, Ling Ghyll : 20/5/30 ; abundant, 7-9/6/30, J.M.B., 1930b ; Dank Ghyll : 29/6/42, W.D.H.  
 Harewood, Harewood Bridge : ♂♂ ♀♀, 18/5/31, 22/6/31, J.R.D. and W.D.H. ; 11/6/32, W.D.  
 Pool, River Wharfe : ♂♂, 8/6/31, J.R.D. and W.D.H.  
 Leeds, Roundhay Gorge : ♂♂ ♀♀, 27/6/31, J.R.D. and W.D.H. ; 2/7/41, J.R.D.  
 Pateley Bridge : 22/5/32, W.D.  
 Malham : 14/6/30, 6/9/32, J.M.B.  
 Ripon, River Skell : 23/6/34, W.D.H., 1934.  
 Bentham, River Greta : Nymphs, 8-10/6/35, C.A.  
 Bolton, Bolton Woods : 1 ♂, 3/6/39, J.W.
- V.C. 65.—Leyburn : 23-25/5/31, H.W., R.W.B. and J.M.B., H.W., 1931.  
 West Tanfield : abundant, 29/5/32, J.R.D. and W.D.H. ; Tanfield : Subimagines, 11/5/35, J.M.B., 1935c.  
 Dent : 3-5/6/33, J.M.B., 1933.

30. *RHITHROGENA HAARUPI* Esb.-Pet.

Fishermen's names : Great Red Spinner (imago), True March Brown (subimago).  
 (On the wing : May.)

- V.C. 64.—Horton-in-Ribblesdale : ♂♂ ♀♀, 22/5/42, W.D.H.

31. *HEPTAGENIA SULPHUREA* (Müll.).

Fishermen's names : Little Yellow May Dun (sub-imago), Yellow Hawk (subimago).  
 (On the wing : June and July.)

- V.C. 64.—Harewood, Harewood Bridge : June and July, 1925-27, E.P. and H.W., 1927 ; 22/6/31, 13/6/32, J.R.D. and W.D.H., 1932.  
 Collingham, River Wharfe : June and July, 1925-27, E.P. and H.W., 1927.  
 Pool, River Wharfe : 1 ♂, 8/6/31, J.R.D. and W.D.H., 1932.  
 Ripley, River Nidd : June and July, 1925-27, E.P. and H.W., 1927.  
 Burnsall : June and July, 1931, W.G.B., D.E.K., 1932.  
 Hebden, River Wharfe : 20/9/31, W.G.B., D.E.K., 1932.

Fountains Abbey, River Skell : 23/6/34,  
W.D.H., 1934.

V.C. 65.—Semerwater, River Bain : Nymphs, 21/5/34,  
J.M.B., 1934; very plentiful, 9/34, J.M.B.,  
1935a.

33. *HEPTAGENIA LONGICAUDA* (Steph.).

(On the wing : August to mid-October.)

V.C. 62.—Helmsley District : Early September, 1935,  
J.M.B., 1935d.

Robin Hood's Bay, Flyinghall : 22/9/36,  
J.M.B., 1937a; Brockets : 28/9/37, 7/10/37;  
Oxbank Wood : 1/10/37, J.M.B., 1938a.

Sandsend, Mulgrave Woods : 12/9/36, J.M.B.,  
1937a.

V.C. 63.—Sheffield, Wyming Brook : 14/9/37, J.M.B.  
Keighley, Homehouse Wood : 2 ♂♂, 29/7/34,  
J.W.

V.C. 64.—Grassington : 10/30, H.W., D.E.K., 1932.  
Gisburn, River Ribble : 8/8/31, W.G.B.,  
D.E.K., 1932.

Hebden, River Wharfe : 8/8/31, W.G.B.,  
D.E.K., 1932.

Bentham, River Greta : 7 nymphs, 8-10/6/35,  
C.A.

Malham : 7/9/33, J.M.B.

V.C. 65.—Semerdale, Semerwater, River Bain : Nymphs,  
21/5/34, J.M.B., 1934; Imagines, 9/34,  
J.M.B., 1935a.

33. *HEPTAGENIA LATERALIS* (Curt.).

(On the wing : June to August.)

V.C. 62.—Robin Hood's Bay, Millbeck : June and July,  
1925-27, E.P. and H.W., 1927; Row  
Pasture Beck : Nymphs, 15-17/4/33, J.M.B.,  
1933b; Maw Wyke : 25/6/37, J.M.B., 1938a;  
Brockets Beck : 2/7/37, J.M.B., 1938a;  
Flyinghall : 23/8/39, J.M.B., 1941.

V.C. 63.—Grassington, Dibb Scar : Nymphs under stones,  
4-6/6/27, E.P., 1927.

Austwick, Norber Syke : June and July,  
1925-27, E.P. and H.W., 1927.

Upper Wharfedale, Swarth Gill : June and July,  
1925-27, E.P. and H.W., 1927.

Malham : 28/8/32, 23/7/35, J.M.B.

Bentham, River Wenning : Nymphs, 8-10/6/35,  
C.A.

Horton-in-Ribblesdale, Dauk Ghyll: 1 ♂,  
29/6 to 1/7/42, W.D.H.

Littondale, Litton Foss: 20/8/43, D.E.K.,  
1943.

V.C. 65.—Hawes, Aysgill and Mossdale: 30/31 and 5/36,  
J.M.B., 1936b.

34. *ECDYONURUS VENOSUS* (Fab.).  
Fishermen's names: Great Red Spinner (imago), False  
March Brown (subimago).

(On the wing: Mid-May to September.)

Widely distributed and very abundant in York-  
shire: 16/5 to 19/9/1925-27, E.P. and H.W.,  
1927.

V.C. 62.—Robin Hood's Bay, Flyinghall: 20/6/36,  
J.M.B., 1937a; Bay Town: 21/6/38;  
Brockets: 27/5/40; Oxbank Wood: 12/6/40,  
J.M.B., 1941.

V.C. 63.—Keighley, Homehouse Wood: ♂♂, 3/6 and  
3/8/34, J.W.; Harden Moor: 9/6/34, J.W.

V.C. 64.—Grassington, Dibb Scar: Nymphs, 4-6/6/27,  
E.P., 1927; Grassington: 7/34, J.M.B.  
Broughton, River Leven and Bilsdale Beck:  
Nymphs, 7-9/4/28, E.P., 1928.

Austwick, Wharfe Gill: Nymphs, 14/6/28,  
H.W., 1928.

Harewood, Harewood Bridge: 18/5/31, II and  
13/6/32, J.R.D. and W.D.H.

Leeds, Meanwood Beck: 4/6/31, J.R.D. and  
W.D.H.

Hebden, River Wharfe: 8/5/30, H.W., D.E.K.,  
1932.

Ribblesdale, River Ribble: Subimagines,  
12/5/31, W.G.B., D.E.K., 1932; Horton-in-  
Ribblesdale: 7-9/6/30, J.M.B., 1930b; Brans-  
Ghyll: ♂ ♀, 26/5/42, 30/6/42, W.D.H.

Malham: 3/7/32, J.M.B.

Fountains Abbey, River Skell: 23/6/34,  
W.D.H., 1934.

Bentham, River Greta: Nymphs and sub-  
imagines, 8-10/6/35, C.A.; River Wenning:  
Nymph, 8-10/6/35, C.A.

Skipton, Winterburn Beck: Nymphs, 1/8/32,  
J.M.B., 1932.

V.C. 65.—Barnard Castle: 19-21/4/30, J.M.B., 1930a.  
Dent: 3-5/6/33, J.M.B., 1933a.

Semerdale, Semerwater : 24/5/34, J.M.B., 1934 ;  
September, 1934, J.M.B., 1935a.  
Tanfield : Subimagines, 11/5/35, J.M.B., 1935c.  
Hawes, Aysgill and Mossdale : 30-31/5/36,  
J.M.B., 1936b.

35. *ECDYONURUS TORRENTIS* Kimmins.  
(On the wing : May and June.)

V.C. 64.—Horton-in-Ribblesdale : ♀ subimago, 26/6/42,  
W.D.H.

36. <sup>1</sup>*ECDYONURUS FORCIPULA* (Pict.).

V.C. 63.—Sheffield District : Nymph about 1932, J.M.B.,  
W.D.H. and J.R.D., 1935.

Keighley District : Nymph, 1933, J.W.,  
W.D.H. and J.R.D., 1935.

V.C. 64.—Leeds, Scarcroft : Nymph, 1932, W.D.H. and  
J.R.D., 1935.

Ripon, River Skell : Late instar nymph, 8/33,  
W.D.H. and J.R.D., 1935.

37. *ECDYONURUS INSIGNIS* (Eaton).

(On the wing : June to August).

V.C. 64.—High Bentham, River Wenning : 4 nymphs,  
8-10/6/35, C.A.

V.C. 65.—West Tanfield : 1 ♂ numerous ♀♀ subimagines,  
2/8/31, J.R.D. and W.D.H., 1932.

<sup>1</sup> The nymph, probably representative of the species, only having been captured so far, the time of appearance on the wing is at present unknown and these records are tentative. For figs., *vide* : Schoenemund, 1930, and Hincks and Dibb, 1935.

### 3. VICE COUNTY CHECK LIST

SPECIES v.c.	MID					NYMPH HABITAT
	S.E. 61	N.E. 62	S.W. 63	W. 64	N.W. 65	
1. <i>Ephemera vulgata</i> Linn. . . . .				×	×	Muddy bottoms of slow flowing rivers.
2. " <i>danica</i> Müll. . . . .		×		×	×	Lakes and rivers of medium flow.
3. <i>Leptophlebia marginata</i> (Linn.) . . . . .			×	×		Lakes and slow streams with stony beds.
4. " <i>vespertina</i> (Linn.) . . . . .				×	×	Lakes and slow streams with stony beds.
5. <i>Paraleptophlebia submarginata</i> (Steph.) . . . . .		×	×	×	×	Fairly fast small streams.
6. " <i>cincta</i> (Retz.) . . . . .		×		×	×	Fairly fast rivers.
7. <i>Habrophlebia fusca</i> (Curt.) . . . . .	×	×		×	×	Slow streams with much aquatic vegetation.
8. <i>Ephemerella ignita</i> (Poda) . . . . .	×	×	×	×	×	Very fast rivers and streams.
9. " <i>notata</i> Eaton . . . . .					×	Fast rivers and streams.
10. <i>Brachycercus harrisella</i> Curt. . . . .					×	Medium flowing rivers.
11. <i>Caenis macrura</i> Steph. . . . .				×	×	Large rivers.
12. " <i>horaria</i> (Linn.) . . . . .				×	×	Large silted rivers and lakes.
13. " <i>riovulorum</i> Eaton . . . . .					×	Streams with stony beds.
14. <i>Baëtis bioculatus</i> (Linn.) . . . . .			×		×	Large rivers and streams.
15. " <i>scambus</i> Eaton . . . . .				×	×	Rivers.
16. " <i>vernus</i> Curt . . . . .					×	Rivers.
17. " <i>tenax</i> Eaton . . . . .				×	×	Large and small rivers and streams.
18. " <i>buceratus</i> Eaton . . . . .					×	Rivers.
19. " <i>rhodani</i> (Pict.) . . . . .		×	×	·	×	Large and small rivers and streams.
20. " <i>pumilus</i> Burm. . . . .				×	×	Large and small rivers and streams.
21. <i>Centroptilum luteolum</i> (Müll.) . . . . .			×		×	Large and small rivers and streams.
22. " <i>pennulatum</i> Eaton . . . . .			×		×	Small rivers and streams.
23. <i>Cloëon dipterum</i> (Linn.) . . . . .		×		×	×	Ponds and reservoirs among aquatic vegetation.
24. " <i>simile</i> Eaton . . . . .				×	×	Ponds, lakes and slow streams.
25. <i>Procloëon rufulum</i> (Müll.) . . . . .		×	×	×	×	Ponds, lakes and slow streams.
26. <i>Siphlonurus armatus</i> Eaton . . . . .					×	Lakes and ponds.
27. " <i>lacustris</i> Eaton . . . . .				×	×	Lakes and slow streams.
28. <i>Ameletus inopinatus</i> Eaton . . . . .				×	×	Streams at high altitudes.
29. <i>Rhithrogena semicolorata</i> (Curt.) . . . . .		×	×	×	×	Fast rivers and streams with stony beds.
30. " <i>haarupi</i> Esb.-Pet. . . . .					×	Fast rivers.
31. <i>Heptagenia sulphurea</i> (Müll.) . . . . .					×	Large fairly fast rivers.
32. " <i>longicauda</i> (Steph.) . . . . .		×	×	×	×	Large rivers.
33. " <i>lateralis</i> (Curt.) . . . . .		×	×		×	Margins of lakes and fast streams.
34. <i>Ecdyonurus venosus</i> (Fab.) . . . . .			×	×	×	Fast rivers with stony beds.
35. " <i>torrentis</i> Kim. . . . .					×	Fairly fast stony rivers.
36. " <i>forcipula</i> (Pict.) . . . . .				×	×	Small fairly fast streams.
37. " <i>insignis</i> (Eaton) . . . . .				×	×	Large fairly fast rivers.

## 4. BIBLIOGRAPHY

Abbreviations :—*Nat.* = *Naturalist.*   *E.M.M.* = *Entomologists' Monthly Magazine.*

**ALLEN, C.—**

1934.      Yorkshire Naturalists at Semerwater, *Nat.*, 1934; 165.

**BROWN, J. M.—**

- 1930a.      Yorkshire Naturalists at Barnard Castle, *Nat.*, 1930, 237.  
 1930b.      Natural History of Horton-in-Ribblesdale, *Nat.*, 1930, 299.  
 1931.      Yorkshire Naturalists and Geologists at Osmotherley,  
                 *Nat.*, 1931, 378.  
 1932.      Y.N.U. at Skipton, *Nat.*, 1932, 350.  
 1933a.      Yorkshire Naturalists at Dent, *Nat.*, 1933, 187.  
 1933b.      Yorkshire Naturalists at Robin Hood's Bay, *Nat.*, 1933,  
                 132-134.  
 1934.      Yorkshire Naturalists at Semerwater, *Nat.*, 1934, 159-165.  
 1935a.      Additions to the Natural History of Semerdale, *Nat.*, 1935,  
                 90-91.  
 1935b.      Yorkshire Naturalists at Hovingham, *Nat.*, 1935, 256.  
 1935c.      Yorkshire Naturalists at Tanfield, *Nat.*, 1935, 190.  
 1935d.      Entomology of the Helmsley District, *Nat.*, 1935, 259-260.  
 1935e.      A Yorkshire Locality for *Ameletus inopinatus* Etn.  
                 (Ephemeroptera), *E.M.M.*, 1935, 261.  
 1936a.      Yorkshire Naturalists at Pocklington, *Nat.*, 1936, 239.  
 1936b.      Yorkshire Naturalists at Hawes, *Nat.*, 1936, 181.  
 1937a.      Entomology at Robin Hood's Bay and Sandsend, *Nat.*,  
                 1937, 91-92.  
 1937b.      *Ameletus inopinatus* Etn. in Yorkshire and Derbyshire,  
                 *Nat.*, 1937, 217-8  
 1938a.      Entomology around Robin Hood's Bay, *Nat.*, 1938, 206.  
 1938b.      Some Early Insects near Sheffield (1938), *Nat.*, 1938, 225.  
 1941.      Entomology around Robin Hood's Bay, *Nat.*, 1941, 170.

**DIBB, J. R.—**

1944.      Ephemeroptera Report to Y.N.U. for 1943, *Nat.*, 1944.

**DIBB, J. R., and HINCKS, W. D.—**

1932.      Yorkshire Ephemeroptera, *Nat.*, 1932, 41-43.

**EATON, A. E.—**

- 1883-88.    A Revisional Monograph of Recent Ephemeroidea, *Trans.*  
                 *Linn. Soc. Lond.* (2), Zool. III.

1888.      A Concise General Synopsis, with an Annotated List, of  
                 the Species of British Ephemeroidea, *E.M.M.*, 1888,  
                 9-12 and 29-33.

**HINCKS, W. D., and DIBB, J. R.—**

1935.      Preliminary Note on a Probable Addition to the British  
                 List of Ephemeroptera, *Jnl. of the Society for British  
                 Entomology*, I (3), 1935, 75-76. Pl. I.

**HINCKS, W. D.—**

1934.      Yorkshire Entomologists at Fountains Abbey, *Nat.*, 1934,  
                 253.  
 1936.      Yorkshire Naturalists at Aberford, *Nat.*, 1936, 191-192.  
 1940.      Meeting of Yorkshire Entomologists at Queen Mary's Dub,  
                 *Nat.*, 1940, 108.  
 1943.      Yorkshire Naturalists at Bolton Percy, *Nat.*, 1943, 91.