

LANCASHIRE AND CHESHIRE LEPIDOPTERA.

THE  
**LEPIDOPTEROUS FAUNA**  
OF  
**LANCASHIRE AND CHESHIRE**

COMPILED BY

W.M. MANSBRIDGE, F.E.S.,

Hon. Sec. Lancashire and Cheshire Entomological Society.

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BEING A NEW EDITION OF Dr. ELLIS'S LIST

brought up to date with the assistance of the Lepidopterists whose names appear below.

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Arkle, J., Chester	...	...	...	...	...	A.
Baxter, T., Min-y-don, St. Annes-on-Sea	...	...	...	...	...	T.B.
Bell, Dr. Wm., J.P., Rutland House, New Brighton	...	...	...	...	...	W.B.
Boyd, A. W., M.A., F.E.S., The Alton, Altringham...	...	...	...	...	...	A.W.B.
Brockholes, J. F. <i>The late</i>	...	...	...	...	...	J.F.B.
Capper, S. J. <i>The late</i>	...	...	...	...	...	S.J.C.
Chappell, Jos. <i>The late</i>	...	...	...	...	...	J.C.
Collins, Joseph, The University Museum, Oxford	...	...	...	...	...	J. Coll.
Cooke, N. <i>The late</i>	...	...	...	...	...	N.C.
Corbett, H. H., Doncaster	...	...	...	...	...	H.H.C.
Cotton, J., M.R.C.S., etc., Simonswood, Prescot Rd., St. Helens	...	...	...	...	...	J. Cot.
Crabtree, B. H., F.E.S., Cringle Lodge, Levenshulme, Manchester	...	...	...	...	...	B.H.C.
Day, G. O., F.E.S. late of Knutsford	...	...	...	...	...	D.
Wolley-Dod, F. H., Edge, near Malpas	...	...	...	...	...	F.H.W.D.
Ellis, John W., M.B. (Vic), F.E.S., etc., 18, Rodney Street, Liverpool	...	...	...	...	...	J.W.E.
Forsythe, Claude F., The County Asylum, Lancaster	...	...	...	...	...	C.H.F.
Frewin, Colonel, Tarvin Sands...	...	...	...	...	...	F.
Greening, Noah, <i>The late</i>	...	...	...	...	...	N.G.
Gregson, Chas. S., <i>The late</i>	...	...	...	...	...	C.S.G.
Gregson, W., <i>The late</i>	...	...	...	...	...	W.G.
Harrison, Albert, F.E.S., <i>The late</i>	...	...	...	...	...	A.H.

Harrison, W.	...	...	...	...	W.H.
Higgins, Rev. H. H., <i>The late</i>	...	...	...	...	H.H.H.
Hodgkinson, J. B., <i>The late</i>	...	...	...	...	J.B.H.
Johnson, C.F., West Bank, Didsbury Road, Heaton Mersey	...	...	...	...	C.F.J.
Johnson, Wm., <i>The late</i>	...	...	...	...	W.J.
Melvill, J. C., Meole Brace Hall, near Shrewsbury	...				J.C.M.
Mansbridge, Wm., F.E.S., 4, Norwich Rd., Liverpool					W.M.
Newstead, Prof. Robert, M.Sc., F.R.S., Hon. F.R.H.S., The University, Liverpool	...	...	...	...	N.
Pierce, F. N., F.E.S., 1, The Elms, Dingle, Liverpool					F.N.P.
Prince, H. B., Birkenhead	...	...	...	...	Pr.
Richardson, J. J., 128, Selborne Street, Princes Rd., Liverpool	...	...	...	...	J.J.R.
Sharp, W.E., F.E.S., Charterlea, Wokingham Road, Crowthorne, Berks	...	...	...	...	Sh.
Stock, J. H., M.P., The White Hall, near Tarporley					Stk.
Stocks, W. P., F.R.C.S., 59, Wilmslow Road, Withington, Manchester	...	...	...	...	W.P.S.
Sweeting, H. R., M.A., Wulfruna, Alexandra Avenue, North Finchley, London, N.W.	...	...	...	...	H.R.S.
Tait, R., Roseneath, Ashton-on-Mersey	...	...	...	...	R.T.
Thorpe, John, Altringham	...	...	...	...	Tp.
Thornewill, Rev. C. F., Calverhall Vicarage, Whitchurch	...	...	...	...	Th.
Tyerman, W. A., Liverpool	...	...	...	...	W.A.T.
Walker, A. O., Chester	...	...	...	...	A.O.W.
Wilding, Richard, 52a, Orrell Lane, Walton, Liverpool					R.W.
Williams, C. B., F.E.S., 20, Slatey Road, Claughton Birkenhead	...	...	...	...	C.B.W.
Wright, A. E., 41, Brooklands Road, Burnley	...	...	...	...	A.E.W.
Publications quoted :—					
Entomologists Monthly Magazine, The	...	...	...	...	E.M.M.
Entomologist, The	...	...	...	...	Entom.
Entomologists' Record, The	...	...	...	...	Ent. Rec.
Dr. Ellis's List	...	...	...	...	E.L.
Mr. A. O. Walker's List	...	...	...	...	W.L.

## Other Abbreviations employed :—

Lanc.	...	Lancashire	r.c.	...	Rather common
Ches.	...	Cheshire	v.c.	...	Very common
West.	...	Westmorland	Dist.	...	District
a.	...	Abundant	Occ.	...	Occasional
c.	...	Common	r.	...	Rare
n.c.	...	Not common	Sev.	...	Several

## RHOPALOCERA.

*Fam. PIERIDÆ.*

PIERIS, Schr.

*Pieris brassicæ*, L. Common everywhere in Lancashire and Cheshire in June and July. The late Mr. Albert Harrison bred a form of the female having the spots on the fore-wings joined, making a dumbbell-shaped bar, from Wavertree, Liverpool.

*Pieris rapæ*, L. Generally distributed and common in both counties. At Rostherne, Cheshire, not so common as *napi* (A.W.B.). A dusky form taken at Altringham some years ago (A.W.B.).

*Pieris napi*, L. Generally distributed inland in both counties. North Lancashire, abundant both broods; about Clougha Pike some of the forms are much suffused with black scales the veins being broadly marked (Forsythe); this is also the case in the Burnley district (A.E.W.).

## EUCHLOE, Hüb.

*Euchloe cardamines*, L. This species is somewhat local in its distribution and is more abundant in Cheshire than in Lancashire, except the North.

**Lanc.**—Grange, Holker Moss, Ulverstone, Windermere and Silverdale, abundant (C.F.J., B.H.C.); Uncommon about Lancaster; near Quernmore and Torrisholme, odd specimens only (C.H.F.); Smithy Bridge, near Rochdale, one taken by Mrs. Radcliffe. Fairly common in low-lying meadows between the coast and Ormskirk, and between Allerton and Hale; Bolton, fairly common; Preston scarce; Rainhill, very scarce (E.L.).

**West.**—Witherslack and Meathop, abundant (C.H.F.).

**Ches**—Recorded from all parts of the Delamere Forest district by all collectors; Bramhall (R.T.); Castle Mill (A.W.B.); Stockport, odd specimens, (C.F.J.); Tabley (A.W.B.); numbers between Farndon and Eccleston (A.W.B.); Oxton near Birkenhead and Chester (C.B.W.); Chester district, common; throughout Wirral as at Bromborough and Raby Mere (R.W.); Chester (C.B.W.); Tarvin (W.M.); local about Cheadle Hulme and Alderley (E.L.).

In Mosley's Illustrated Var. Lepidoptera are figured two aberrations of this species captured in Lancashire—the one a very dwarf specimen taken by S.L.M. at Arnside in 1877, the other taken by Mr. Gregson at Southport, in which the ground colour of the wings is pale yellow, *E.L.*

LEUCOPHASIA, Steph.

**Leucophasia sinapis**, L. This species, once tolerably common, but local, is now only recorded from the Grange district and the neighbourhood of Witherslack; the insect is now rare in those places where it is still met with.

**Lanc.**—Grange, a series by W. H. Goult (Entom. 1890, 385); abundant at Grange, *E.L.*; Manchester, one from Clifton Wood (F.N.P.) *E.L.*

**West.**—Witherslack and Meathop, fairly common (C.H.F.).

**Ches.**—Dunham Park (J.B.H., Intell. 1859, vol. II., 101); also recorded from a plantation between Hooton and Mollington by Mr. Gregson, *E.L.* Said to occur near Parkgate, *D.L.*

COLIAS, Fabr.

**Colias hyale**, L. There are no records since the publication of Ellis' list in 1885, the reference is as follows:—"Mr. Chappell informs me that this species was captured at Bury by Mr. Robert Kay; in Stainton's Manual it is recorded as having occurred in the Manchester district."

**Colias edusa**, Fab. This species is of very irregular occurrence in both counties. In the so-called edusa years it is common in certain localities, generally on or near the coast, as Grange, Meathop, Wallasey, etc. while between these periods it is only of occasional appearance.

**Lanc.**—1847, Liverpool, in Pigue Lane (C.S.G.); Bolton, in 1858 (W.J.); Ulverstone, one in 1858 (J. Kirby); Lancaster, 1869 (J.B.H.); Southport, 1869 (R. Kay); Bury (R. Kay). In 1877 it was recorded from several places as common, which was the case all over the country in that year. Crosby, abundant (J.W.E.); Manchester (F. Kenderdine); Middleton, abundant (J. Thorpe); Southport (R. Kay); Grange, freely at times (J.B.H.); Huyton, one specimen (S.J.C.); 1889, a good many at Grange (G. Podmore, Entom. 1890, page 16); St. Anne's-on-Sea, several in 1900 (B.H.C.); Hest Bank, 1900 (C.H.F.); near Halton, 1900 (C.H.F.); Bold (A. Jackson, Entom., 1901, page 163); Lancaster, 1901, several in 1902

(C.H.F.); Grange, fairly common, 1892, fairly common (G. A. Booth), 1892-3 (T.B.); Burnage, 1892, one specimen (W. Raeper); 1878, several (H. Massey).

**West.**—Meathop Bank in 1900 (G. Loxham).

**Ches.**—New Brighton, 1847, taken by Mr. Canty (C.S.G.); Chester, rather common in 1859 and again in 1877 (A.O.W.); Alderley, one in 1868 by W. W. Keyworth (H.H.C.); Bollin Valley, 1869, several (J. R. Hardy); Bowdon, 1877 (Tp. in Day list); Handforth, common, 1877 (H.H.C.); Sale, 1877, several (Chas. Oldham); Liscard, taken freely in 1877 by Mr. Leather (J.W.E.); Storeton, common, 1877 (W.G.); 1889 and 1893 (Pr.); Wallasey sandhills, 1877 (J.W.E., R.W.); 1899 and 1893 (Pr.); Delamere, 1877 (Mrs. Leather, A.); one in 1878 (J.C.M.); Guilden, Sutton and Ellesmere Port, one at each place in 1901 (N.); Dee Cop, Chester, 1900, several seen (N.); Parkgate, one in 1911 (A.W.B.); Congleton, several in 1877 (R.W.).

**Var. helice, Hub.** Very rare. The following from *E.L.* are the only records:—Crosby, a single specimen captured in 1877 by Thomas West (Trans. Lanc. and Ches. Ent. Soc., 1877); Birkenhead district, a specimen taken by Mr. Wm. Lello, in August, 1868 (Entom. iv, 145); Storeton, one in 1877 by W. Gardner, Burnage, one *helice* in 1878 (H. Massey).

GONEPTERYX, Leach.

**Gonepteryx rhamni**, L. Except in North Lancashire, where it appears to be occasionally abundant, this conspicuous butterfly is rare.

**Lanc.**—Bolton, occasional (W.J.); Silverdale (J.C.M.); Hale, taken by Mr. Nixon (C.S.G.); Rainhill, two females many years ago (H.H.H.); Lancaster, 1905, rare (C.H.F.); Prescot, one by Rev. R. Freeman, in 1893 (J. Cot.); Grange and Holker Moss, fairly common, abundant some years (B.H.C.).

**West.**—Witherslack, abundant, Arnside, fairly common (C.H.F.).

**Ches.**—Alderley, one in 1867 (H.H.C.); Cheadle Hulme, one in 1868 (H.H.C.); Bidston, one in 1875 (W.G.); Upton, seen by Mr. Almond (J.F.B.); Beeston Castle, taken by Mr. Geo. Day (A.O.W.); Chester (Day); Bowdon, Bollin Valley and Lindow Common, rare (J.C.); Delamere Forest, odd specimens by various collectors:—Mr. F. Leather, C.S.G., recorded Ent. vi, 452, and J.C.M.; and in 1902 (Tp.),

## NYMPHALIDÆ.

ARGYNNIS, Fab.

*Argynnis selene*, W.V. Scarce except in North Lancashire bordering the Lake district, rare in Cheshire.

**Lanc.**—Grange (J.B.H.); Silverdale (J.C.M.); 1910 (A.E.W.); Winster, 1897 (J. Cot.); Lancashire end Windermere and Holker Moss, common (B.H.C. and C.F.J.); Clougha Pike, formerly common now extinct (C.H.F.) 1905.

**West.**—Common until a few years ago, now extinct through cultivation in the Witherslack district (G. Loxham).

**Ches.**—Delamere (J.C. and J.C.M.); Hatchmere in 1884 (Sh.). The late Mr. F. Bond had a specimen taken at Macclesfield in which the spots are almost entirely obliterated (Mosleys' Varieties, Pt. v, Argynnis, pl. iv., fig. v.).

*Argynnis euphrosyne*, L. Another species common in North Lancashire above Grange but rare elsewhere in the two Counties.

**Lanc.**—Abundant at Grange and at Silverdale (E.L.); near Grange, common, 1906-1913 (W.M.); Silverdale 1909 (W.M.); Winster, common, 1897, 1900-1 (J. Cot.); Lancashire end of Windermere and Holker Moss, very abundant (B.H.C. and C.F.J.); at Yealand, a form with decidedly ochreous marginal dots is frequent (A.E.W.) A fine variety is figured, Entom. xxviii, p.l, as having been captured in Lancashire.

**West.**—Arnside, common (C.H.F.).

**Ches.**—Delamere Forest (J.C. and J.C.M.) E.L.; Bromborough Woods (C.S.G.) E.L. It appears now to be extinct in both these localities.

*Argynnis niobe*, L. This species is not now regarded as British, but it is worthy of mention that a specimen was captured by the late Mr. C. S. Gregson, at the "Devil's Gallop," on the Lancashire side of Windermere, in August, 1871 (Entom. viii, 84 and Y.N., i, 407).

*Argynnis aglaja*, L. This species, which used to be common on the coast sand-hills, is now comparatively scarce; in the country bordering the Lake district it is still common.

**Lanc.**—Crosby, Formby, Southport, Blackpool and Windermere, common (E.L.); Windermere, Holker and Grange, common (Tait); Silverdale (A.E.W.); Hest Bank, one in 1901 (C.H.F.); St. Anne's-on-Sea, used to be fairly common on the sand-hills, but has become scarcer of late years (T.B.) 1908, Warton, common (C.H.F.).

**West.**—Witherslack, common (C.H.F.) 1913 (W.M.); Arnside, common (C.H.F.) common, 1913 (R.W.).

**Ches.**—Formerly common on the New Brighton and Wallasey sand-hills (E.L.).

**Var. Charlotta, Haw.** Mr. Edleston records a specimen captured at Blackpool in 1843 (Zool. ii, 399); and Mr. Gregson also records three specimens of this variety from Bootle (Entom. iii, 209); E.L.

*Argynnis adippe*, L. Practically confined to the district above Grange, where in favourable seasons it is common.

**Lanc.**—Common on the Lancashire side of Windermere, Silverdale and Grange (E.L.); Lancashire side of Windermere and Holker Moss, common (Tait); Silverdale, 1910 (A.E.W.); Warton, fairly common, 1905 (C.H.F.).

**West.**—Common at Arnside and Witherslack. A fine aberration was taken at Arnside, by G. Loxham (C.H.F.).

**Ches.**—New Pale Farm, Delamere, by Mr. Nixon (D.L.).

*Argynnis paphia*, L. A very rare species with us.

**Lanc.**—Said to have occurred near Bolton, E.L.

**West.**—A specimen taken by Mr. C. H. Forsythe, at Witherslack, August 3rd, 1901 (Entom. xxxiv, p. 253).

**Ches.**—Delamere, common, (J.C.M. in E.L.); the Wyches near Malpas, not very common (F.H.W.D. in D.L.). One specimen seen, but not captured near Ellesmere Port, July, 1888. "At this time vast quantities of hazel faggots were brought from all parts of England to strengthen the sides of the ship canal; it is not improbable that a larva or pupa was introduced with them" (W. E. Sharp).

## MELITÆA, Fabr.

*Melitæa aurinia*, Rott. There appear to be no fresh records of this butterfly since Ellis' list was published in 1885, unless the note "Malpas abundant" by the Rev. C. Walley-Dod, in Days' list, is more recent.

**Lancs.**—Bolton, occasional (W.J.); between Maghull and Lydiate, plentiful (C.S.G.); one at Rainhill (H.H.H.); Warrington (N.G.), Ellis list.

**Ches.**—Ashley Meadows, formerly (J.C.M.); Eastham, one specimen taken by S. Archer (J.F.B.); Malpas, abundant, but local (A.O.W.), also (C.W.D.) in Day list; Stockport, abundant in 1845 (R. S. Edleston, Zool. 1845, 1220); Knutsford, common (J.C.), not recorded for many years (Day) Ellis' list.

In Mosleys' varieties (Part xii, *Melitaea*, pl. i, fig. 3) is a large and peculiar variety which was taken at Knutsford (*E.L.*).

**Melitaea athalia, Esp.** Recorded from Marple, Cheshire, by J.B.H. (Intell. 1859, Vol. ii, p. 101) *E.L.* This is the only record for our Counties, and as it appears not to have been accepted by Mr. G. O. Day for his list, the species ought to be deleted altogether.

#### VANESSA, Och.

**Vanessa c-album, L.** Of rare occurrence, usually in odd specimens only, in most cases it is probably introduced accidentally with farm produce,

**Lanc.**—Bolton (W.J.); Chat Moss, occasional (J.C.); Hale and Woolton, occasional (C.S.G.); Ellis list.

**Ches.**—Bebington in 1873 (W.G.); Chester (A.O.W.); Delamere (A.O.W. and J.C.M.); one at New Pale Farm, Delamere, captured by the late Albert Harrison, in 1904 (W.M.); Hooton (C.S.G.); Tranmere, Ness and Puddington (J.F.B.), Ellis list. In Days' list other records are as follows:—One in Curzon Park, Chester, about 1870 (Day); occasional at Edge, near Malpas (F.H.W.D.); locally common at Wyches, near Malpas (F.H.W.D.); Bowdon, rare (Tp.); one at Tarvin sands about 1892, and another the following spring (F); Delamere, one in 1894 (H.); Ince, occasional (N.); Bidston, one in 1885 (W.G.).

**Vanessa polychloros, L.** Also of rare occurrence, most of the records are from Cheshire. No recent captures have been reported.

**Lanc.**—Brunswick Road, Liverpool, one specimen (N.C.); Red Scar, near Preston (Newmans' Brit. Butts.).

**West.**—One specimen taken at Witherslack, July, 1901, by Mr. Claude H. Forsythe (Entom. xxxiv, p. 245).

**Ches.**—Acton Bridge, taken by James Hirst (J.C.); Alderley, one in 1869, and one in 1870 (H.H.C.); Chester, in 1859 (J.B.H.); Delamere, Petty-pool (R. Brown); Eastham (E. Birchall); Preston Wood (J.F.B.), Ellis list. North Cheshire, one pupa (N.G.).

**Vanessa urticæ, L.** Common and generally distributed over both counties. Every summer I have noticed the larva commonly on roadside patches of nettles even near the large towns. Those I have bred have been darker in coloration than specimens from the South of England.

Mr. T. Baxter reports that the species is now less frequent in the St. Anne's district than formerly; and Mr. F. Windle (Lanc. Nat. 1912) says the larva is not known to occur in the Oldham district.

Mr. Gregson records (Entom. iii, 209) a specimen captured at Hawkshead, in which the two spots on the disc of the fore-wings are absent, thus resembling the Corsican variety *ichnusa*, Bon. (*E.L.*)

**Vanessa io, L.** Reported as occasional or rare from all parts of the two counties and as abundant only about Witherslack and Arnside; it has apparently become scarce in recent years.

**Lanc.**—Grange and Holker Moss (Tait); uncommon about Lancaster (C.H.F.); odd specimens near Clougha Pike, Quernmore, etc. (C.H.F.); St. Anne's and Fleetwood, occasional (T.B.); Burnley, rare (A.E.W.); near Rochdale, 1911-1912 (J. E. Whitehead); Ainsdale, 1909 (W.A.T.); Wavertree, Liverpool, one in 1908 and one 1911 (W.M.).

**West.**—Arnside, common (C.H.F.); Witherslack, common (C.H.F.).

**Ches.**—Delamere Forest, not uncommon some years near Abbotts Moss (Coll.); occasional (Storey); in 1900 (J. Cot.); Frodsham (A.H.); Sealand, near Chester, common, abundant in 1901 (A. in Day list); Carrington, several, 1908 (Tait); Brooklands, occasional (Storey); Stockport, odd specimens (C.F.J.).

Mr. C. H. Forsythe has a Witherslack example, taken in 1901, without the eye-spots on the hind-wings.

**Vanessa antiopa, L.** There are no fresh records in the last 30 years. The following is taken verbatim from the Ellis list. "This scarce but extremely beautiful butterfly has been a pretty frequent visitor to both counties. So far as I am aware, the following list comprises all the specimens recorded in our periodical literature":—

**Lanc.**—Bolton, a specimen was captured in 1857 and recorded (Intell., 1857, vol. i., 190) by Mr. W. Johnson, who informs me that another specimen was captured and several others seen during that year in the same neighbourhood; Bury

in 1872 (R. Kay, Ent., vi, 410); Grange (J.B.H.); near Heywood, in 1880 (J. W. Bentley, Ent., xiii., 277); Kersall Moor, one specimen (J.C.M.); Knotty Ash, near Liverpool, a specimen in 1873 (E. P. Thompson, Ent., vi, 410); Liverpool in the town of), in 1873 (H. Durnford, Entom., vi., 410); Longridge (J.B.H.); Lytham (J.B.H., Intell., 1859, vol. ii., 101); Ribchester, a specimen in 1872 (A. G. Lathom, Ent., vi., 216); Rivington Pikes, about 1855, the specimen in coll. R.S. Edleston (Intell., 1859, ii., 47); Staley-brushes (J.C.); Ulverston (J.B.H.).

**Ches.**—Altringham, a specimen taken by Mr. Keyworth (H.H.C.); Birkenhead, one near Prenton Mount (J.F.B.); Delamere, in 1872, taken by Mr. F. Leather (A.O.W.); Macclesfield Forest, one captured by Hugh Harrison, September 1858 (Intell., 1859, ii., 47); Neston, in 1872 (J.F.B., in Ent., vi., 410); Edge Park, Malpas, one in 1872 (C.W.D.).

**Vanessa atalanta**, L. Both Ellis and Day in their lists refer to this butterfly as common and generally distributed, but only one or two of my correspondents refer to it as common, and my own experience in the last ten years has been limited to less than half a dozen specimens. Like most of the species of this genus, it is more frequent in some years, but it appears to have become quite scarce in the last decade.

**Lanc.**—Holker Moss (Tait); Burnley district, common some years, other seasons not seen (A.E.W.); St. Annes, fairly common some seasons (T.B.); Lancaster (C.H.F.); Winster, common in 1899 (J. Cot.); Ainsdale, one in 1906 (W.A.T.); Crosby 1904-6-8 (L.W.G.); Wavertree, Liverpool, one in 1906, and one in 1908 (W.M.); St. Helens, 1907 (W.M.); Knowsley Park (J. Cot.); S. Manchester (Tait); Bootle, in 1912 (R.W.); near Kirkham, 1913, (A.W.B.)

**West.**—Fairly common some seasons at Meathop, Witherslack and Arnside (C.H.F.)

**Ches.**—Eastham (A.H.); Ashton-on-Mersey, 1906 (Tait); Delamere Forest 1900 (J. Cot.); Carrington 1908 (Tait); Stockport, most years (C.F.J.); Bidston, fairly common 1909 (C.B.W.); Altringham, not common (A.W.B.).

A beautiful aberration of this species, having the central band of the fore-wings almost obliterated, and which was captured near Oldham by Mr. Joseph Chappell, is figured in Mosley's varieties, part xiii., *Vanessa*, pl. vii., fig. 1.

**Vanessa cardui**, L. This species, now generally recognised as an immigrant, is common on the coasts at uncertain intervals, and some years the larvæ are plentiful on thistles growing on the sandhills; rare inland.

**Lanc.**—Crosby, larvæ in profusion on the sand-hills in 1884 (E.L.); also in 1906 (W.M.); Heysham, larvæ annually, some years ago (G. Loxham); Lancaster, not common (C.H.F.); Burnley district, rare (A.E.W.); St. Annes, abundant some seasons, on the sand-hills (T.B.); S. Manchester, one or two (B.H.C.); Two specimens in Knowsley Park (J. Cot.).

**West.**—Fairly common some seasons, scarce in others, at Arnside, Meathop and Witherslack (C.H.F.).

**Ches.**—Delamere, one in 1906 (Storey); Wallasey 1907 (C.B.W.); Stockport, odd specimens (C.F.J.); Marbury Park, Great Budworth, one in 1913 (A.W.B.).

#### SATYRIDÆ.

MELANARGIA, Meig.

**Melanargia galatea**, L. Recorded from Preston by Rev. F. O. Morris in his British Butterflies. No authority is given and this species had better be deleted from our list.

EREBIA, Bd.

**Erebia æthiops**, Esp. (*blandina*, Fb.)

**Lanc.**—Common at Grange and Silverdale, recorded from Colne, near Burnley (J.B.H., Intel., 1859, ii., 101). Carnforth, Warton Crags, 1905 (Dr. Hodgson).

**West.**—Common at Arnside and Witherslack (C.H.F.) Arnside 1913, fairly common (R.W.)

PARARGE, Hb.

**Pararge egeria**, L. This species, stated in E.L. "to be generally distributed but apparently nowhere common" seems now to have become very scarce in our counties; no new records have reached me and I have not seen it during the last ten years.

**Lanc.**—Bolton (W.J.); Grange (J.B.H. and E.S.); and Silverdale (J.C.M.) E.L.

**West.**—Fairly common near Witherslack some years ago (G. Loxham); now extinct there (C.H.F., 1905).

**Ches.**—Delamere (J.C.M.); occasional in the wooded parts of Wirral (J.F.B. and C.S.G.); E.L., North Cheshire (N.G.); formerly in Eaton Park, Chester (Day).

**Pararge megæra**, L. This species also seems to have become much scarcer in the last decade but not so much so as the preceding.

**Lanc.**—Not nearly so common as formerly in the Manchester district (J.C. in *E.L.*) ; Formby, 1898-9 (J. Cot.) ; Hightown, 1899, (L.W.G.) ; Ainsdale, 1909, (W.A.T.) ; Winster, 1899 (J. Cot.) ; Grange, common (B.H.C.) ; two near Rochdale, 1911 (J. E. Whitehead) ; common near Sline, Heysham and Warton, 1905 (C.H.F.).

**West.**—Common near Meathop and Witherslack, also the autumn brood (C.H.F.).

**Ches.**—About Cheadle Hulme, where it is very scarce (H.H.C.), *E.L.* Common and generally distributed throughout, except in Cheshire east of Delamere Forest, from which district it appears to be entirely absent (*D.L.*) ; Hoylake and district, common (Day, R.W.) ; Malpas, common (F.H.W.D., S. M. Johnson) ; Wirral, abundant (W.G.) ; the Cop, Chester, not common, and Saughall (A.) ; North Cheshire (N.G.) ; Tarporley (Stk.) ; near Wallasey (C.F.J.) ; Altringham, one in 1897 (A.W.B.) ; Bickerton Hill, common (Storey).

#### SATYRUS, Bd.

**Satyrus semele**, L. Common on the coast sand-hills and on the hills in N. Lancashire, also according to Days' list on the hills in Cheshire.

**Lanc.**—Bidston Hill, abundant (J.F.B. and J.W.E.) *E.L.* Formby, 1899 (J. Cot.) ; Crosby sand-hills, common 1905-7 (W.M.) ; abundant, 1908 (L.W.G.) ; Ainsdale, 1908 (W.A.T.) ; St. Annes, very common on sand-hills 1908 (T.B.) ; Grange near Hospice (B.H.C., C.F.J.) ; Lytham (C.F.J.).

**West.**—Common at Arnside and Witherslack in July and August (C.H.F.).

**Ches.**—Wallasey, common 1908 (C.B.W.) ; Heswall, 1900 (J. Cot., C.F.J.) ; Bickerton (Storey).

#### EPINEPHILE, Hüb.

**Epinephile janira**, L. This usually abundant butterfly seems to be common only near the coast ; it is reported as common or abundant by all collectors from the Dee to the Grange and Witherslack districts, hence only inland records are given below.

**Lanc.**—Burnley district, rare (A.E.W.) ; six taken by Mrs. Ratcliffe near Rochdale (J. E. Whitehead).

**Ches.**—Manchester district, not common (Storey) ; "I have never seen a specimen in the Altringham district and N. Cheshire generally" (A.W.B.) ; Delamere, few (W.M., A.W.B.) ; Days' list says "common throughout."

**Epinephele hyperanthes**, L. Another species which has apparently become very scarce in recent years. I have not received a single record nor have I seen the butterfly myself in our counties.

**Lanc.**—Formerly common at Turton near Bolton (W.J.) ; Botany Bay Wood and Worsley (J.C.) ; Grange (J.B.H.) ; Silverdale (J.C.M.) ; *E.L.* Formerly common in Maud's Wood, Grange-in-Cartmell (G. Loxham) ; Mr. Forsythe says the species has not been taken in N. Lanc. for the last few years and is probably extinct there.

**Ches.**—Delamere (J.C.M. in *E.L.*) ; locally common at the Wyches near Malpas (F.H.W.D. in *D.L.*).

**Epinephele tithonus**, L. With the exception of Cheadle Hulme district where it appears not common (A.O.W.) ; this species is tolerably common in both counties, being especially abundant near the coast as at Lytham (J.B.H.) ; Fleetwood (S.L.M.) ; West Kirby and Bidston (J.W.E.) *E.L.* New records are as follows :—

**Lanc.**—Ainsdale, common 1908-9 (W.A.T.) ; very local near Overton (C.H.F.).

**Ches.**—Not recorded from N.E. Cheshire (*D.L.*) Edge, near Malpas, common (F.H.W.D.) ; Malpas, abundant (S. M. Johnson) ; Saughall and Shotwick, abundant (A) ; Frankby (Day) ; Heswall (Tp.) ; Wallasey, now scarce, (Pr) ; N. Ches. (N.G.) ; Ince Marshes sp. (N.) ; Tarporley (Stk.) ; Delamere 1899 and 1905, not common (A.H.) ; 1900 (J. Cot.) ; Burton, Ches. 1902 (A.H.) ; West Kirby, abundant 1913 (Hughes).

#### CÆNONYMPHA, Hüb.

**Cænonympha typhon**, Rott. This species until quite recently was common on all the mosses of Lancashire and Cheshire ; it is still abundant at Witherslack, but in the other localities it is now very scarce, in some of them almost extinct. Various causes probably account for this, it certainly is not in all cases due to over-collecting, and except where peat-cutting, for moss litter, has been extensively practised, the mosses are still

in the same condition as when the insect was common; most probably firing the mosses has had much to do with this scarcity of the insect, and valuable information might be gained if entomologists would keep records of this.

**Lanc.**—Holker Moss, common (C.F.J., B.H.C.); common in 1913 (W.M.); Roudsey Moss, common 1897 (J. Cot.); Heysham Moss, 1892 (B.H.C.); Rixton Moss (C.F.J.); Simonswood Moss, once common, now rare, one seen 1907, two seen 1911 (W.M.); 1898 (J. Cot.); one 1904 (H.R.S.); few 1904-6-7 (Dr. Bell).

**West.**—Abundant at Witherslack and Meathop whenever visited in July (W.M., 1913).

**Ches.**—Delamere Forest, very local, it used to be common, but during the last ten or fifteen years has become increasingly scarce; a few are still captured each year in the more difficult places (W.M.); Wilmslow, rare (Tp. in D.L.).

The insect occurring in these localities is the var. *philoxenus*, *Esp. = rothliebii*, Stgr.; in some of the specimens the eye-spots on the under side are very large, and showing on the upper side as large black spots, while the extreme dark forms are nearly chocolate-coloured in the male. I took a xanthic specimen at Witherslack in 1905 which has the central area of the hind-wings and the tips of the fore-wings pearly grey.

**Cœnonymphma pamphilus**, L. Generally distributed and common, probably everywhere, except in the immediate neighbourhood of large towns.

#### LYCÆNIDÆ.

#### THECLA, Fb.

**Thecla betulæ**, L. Now one of our rare species.

**Lanc.**—Grange (J.B.H. and A. Mason, Intell., 1860, i., 187); Silverdale, a specimen in 1868 (J.C.M.); writing in 1910 Mr. A. E. Wright says "frequent but rarer than formerly"; Common near Silverdale formerly (G. Loxham); very local and scarce, 1905 (C.H.F.).

**Thecla, w-album**, Knoch. Only recorded from Cheshire in Days' list as follows:—Two recorded from the Wyches, near Malpas, by F.H.W.D. Delamere, one taken 1888 (Nixon) in coll. Chester Museum.

**Thecla quercus**, L. I have not received any recent records, it seems once to have been common at Delamere, but is probably extinct now in that locality; in the Grange district it can still be taken in an average season.

**Lanc.**—Grange (J.B.H.); near Stoneyhurst (J.B.H., Entom. xii, 204), E.L., Silverdale, 1910 (A.E.W.); one recorded in 1893 at Prescot, by Rev. R. Freeman.

**West.**—Arnside, 1905, fairly common (C.H.F.); common, 1906 (T.B.).

**Ches.**—Delamere Forest, common (J.C., J.C.M. and A.O.W.); Edge Hall near Malpas, taken by Rev. C. W. Dod (A.O.W.); bred from a larva found in Eastham Wood (J.F.B.) E.L.; Wallasey, one in 1877 (Pr. in D.L.).

**Thecla rubi**, L. Still a common species, but local.

**Lanc.**—Grange (J.B.H.); Silverdale (J.C.M.); Trafford Park, rare (J.C.) E.L.; Grange, 1908 (T.B.); Longridge, 1908 (T.B.); Holker Moss, common (B.H.C.); Clougha and Quernmore, abundant (C.H.F.).

**West.**—Meathop, common (C.H.F.).

**Ches.**—Hale and Lydiate, Sutton and Hargreave Hall (C.S.G. in E.L.); Delamere Forest, has been taken by all collectors, some seasons commonly in certain areas, usually near the mosses. Mr. G. O. Day, in his list, says—"In Cheshire appears to be found only in the Delamere district."

#### POLYOMMATUS, Bd.

**Polyommatus phœas**, L. Common and generally distributed throughout both counties. I have seen it quite near the houses on the outskirts of Liverpool. Mr. A. E. Wright says it is absent from the Burnley district, which is remarkable. It is stated in Ellis' list that the white variety, *Schmidti*, Gerh., occurs very rarely, but I have no record.

#### LYCŒNA, Tr.

**Lycœna ægon**, Schiff. There are no records since 1885, except from North Lancashire and Delamere Forest, but in those districts it is still locally common.

**Lancs.**—Chat Moss, Barton Moss, E.L.; Holker Moss (B.H.C.); common in 1911 (W.M.).

**West.**—Witherslack, locally common (C.H.F., W.M.).

**Ches.**—Delamere Forest, on the heaths, sometimes common (W.M.); several blue females (J. Collins); Bidston Hill, abundant (J.W.E.), now extinct there (F.N.P.). "Very local in Cheshire, where it appears to be confined now to the Delamere district," D.L. Used to be taken rarely at Alderley (W.W. Keyworth, in E.L.); abundant. ab. **Corsica**: this the blue form of the female, is taken on the North Lancashire moors, some seasons commonly, but it is very local; rarely at Delamere.

**Lycœna astrarche**, Bergstr. This species is not recorded from Cheshire and in Lancashire is confined to the North; it is common in its localities.

**Lanc.**—Chat Moss, local (R.S. Edleston, Zool., i., 112); Warton, near Carnforth, (W.M., C.H.F.); Grange (B.H.C., C.F.J.); Silverdale (W.M.).

**West.**—Witherslack common (W.M.).

**Var. salmacis**, St., with white spots on the fore-wings occasional.

**Var. semi-allous** in which the marginal series of orange spots is absent on the upper side of the fore-wings, common.

**Var. allous**, Hb., without orange spots on the upper side, rare. Intermediate forms connecting the above with the type also occur and it is possible to get a perfectly graduated series.

**Lycœna icarus**, Rott. Common and general in its distribution; scarcer eastwards and near the large manufacturing towns both in Lancashire and Cheshire. Near the mouth of the Alt a whitish underside form with connected spots is taken (J.J.R.); very scarce in the Burnley district (A.E.W.).

**Var. icarinus**; Scrib. on the sand-hills (J.W.E.); St. Annes (T.B.); Wallasey sand-hills, once (W.G. in D.L.).

Mr. Mosley figures (Varieties, *Lycœna*, pl. iii. fig. 5) a fine variety taken by himself at Fleetwood, and Mr. Thorpe, records (Entom. iv., 132) a gynandromorphous specimen from Middleton.

**Lycœna corydon**, Poda.

**Lanc.**—Recorded from Grange by the Rev. F.O. Morris in his British butterflies and from Silverdale (J.B.H.); E.L. Near Warton, common in 1892 (G. Loxham).

**West.**—Common about Arnside Tower some years ago (G. Loxham). Although this species has not been recorded since 1892, there seems to be plenty of ground suitable for it in the Grange district and, if sought, it would probably be found there.

**Lycœna argiolus**, L. A local butterfly, its larva feeding on the flowers and flower buds of holly and ivy; sometimes common in its localities.

**Lanc.**—Grange common (E.L.); several 1890 (W.H. Goult); not common (B.H.C., 1910); Silverdale (A.E.W., 1910, and E.L.); Holker Moss, not common (B.H.C., 1910); Hale, near Liverpool, taken by Mr. Nixon (C.S.G., in E.L.).

**West.**—Meathop and Witherslack, common, no second brood occurs (C.H.F.), a fine series in 1912 (A.E.W.).

**Ches.**—Delamere (E.L.); one in 1906 (Storey); since 1890 fairly common in some seasons (A.H.); the White Hall, near Tarporley not common (Stk. in D.L.); N. Cheshire (N.G.); Eastham and Hooton, taken by Mr. T. Harris (C.S.G. in E.L.); Beeston Castle, 1906 (H.R.S.).

**Lycœna minima**, Fuessl. This very local little blue requires careful searching for. There are no records for Lancashire since Ellis' list in 1885 and it appears now to be absent from Cheshire. I specially looked for it in its haunt at Witherslack this year (1913) but without success.

**Lanc.**—Grange (W.H. and E.S.); Silverdale (J.C.M.); between Rainhill and Ditton, several specimens (C.S.G.); E.L.

**West.**—Near Witherslack, very local (C.H.F., 1905).

**Ches.**—Neston (C.S.G.) in E.L.

#### ERYCINIDÆ.

##### NEMEOBIUS, Steph.

**Nemeobius lucina**, L. Another very local species but usually common where it occurs; the eggs may often be found upon cowslip and it is easily bred.

**Lanc.**—Grange, common, 1906, 1912 (W.M.); Silverdale, common, 1912 (A.E.W., F.N.P.).

**West.**—Very local at Witherslack (C.H.F.).

**Ches.**—Once taken between Eastham and Hooton (C.S.G. in E.L.).

## HESPERIDÆ.

SYRICTHUS, Bdv.

*Syricthus malvae*, L. Only recorded from Silverdale (J.C.M. in *E.L.*).

NISONIADES, Hb.

## Nisoniades tages, L.

Lanc.—Grange (*E.L.*); 1906 (W.M., B.H.C.); Silverdale (*E.L.*); 1914 (W.M.); Holker, 1906 (B.H.C.).

West.—Plentiful at Arnside and Witherslack (C.H.F.).

Ches.—In Ellis' list it is recorded as "common on railway banks in Wirral," but Days' list published in 1903, says—"rare and local in Cheshire," so that we must regard it as another species which has become scarce in recent years. Dated records are as follows:—Ledsham, once only, May, 1893 (Sh. in *D.L.*); Shavington Park, on the border of Cheshire and Salop, 1896 (Th. in *D.L.*).

## HESPERIA, Bdv.

*Hesperia thaumas*, Hufn. A scarce species with us, being only recorded from one locality in Lancashire, Silverdale, by J.C.M. in *E.L.*, before 1885.

Ches.—Days' list says—"Local and very seldom seen in Cheshire." Alderley, once in 1873 (W.W. Keyworth); Delamere Forest, near Oakmere, common (J.C.); near Eastham, by S. and F. Archer (J.F.B.); Sutton, local, and Raby Mere, one specimen in 1874 (W.G.). All the above are from *E.L.*, Hooton, 1878, locality now destroyed (S.W.); Malpas, 1900 (S. M. Johnson) from *D.L.*

*Hesperia sylvanus*, Esp. Generally to be found on rough uncultivated ground, such as on the borders of the Mosses, but not in any numbers.

Lanc.—Grange, Chat Moss and Crosby sand-hills (*E.L.*); Silverdale 1909 (C.B.W.); two specimens, 1912 (W.M.); Winster, 1897 (J. Cot.); Roudsey Moss, 1897 (J. Cot.); Holker Moss, 1894 (Arkle); Ainsdale, 1912 (W.A.T.); Simonswood Moss, a few every season (W.M. and *E.L.*); Knowsley Park (J. Cot.).

West.—Fairly common at Meathop and Arnside (C.H.F., W.M.).

Ches.—Delamere Forest, generally a few (W.M.); Rudheath, 1906 (A.W.B.); Stretton near Warrington, a short series, 1910 (J. Robinson); Ince Marshes, sparingly (N. in *D.L.*); Whixall Moss, 1898 (Th. in *D.L.*). Older records are Knutsford (*E.L.*), but not for many years (*D.L.*); throughout Wirral (J.F.B. in *E.L.*); Goostrey, common (Th. in *D.L.*)

## SPHINGES.

## Fam. SPHINGIDÆ.

## ACHERONTIA, Och.

*Acherontia atropos*, L.—Frequent in both counties and generally distributed, sometimes in considerable numbers in the larval state.

Lanc.—Hayton, 1856 (Armstrong); Bolton, 1856 (Fraser), 1896 (Midgley), 1907 (Warburton), 1908 (Baldwin); near Leigh, 1859 (Daniels); Goosnargh, 1863, 1866 (Standen); Blackpool, larvæ c. in 1864, 1868 and 1870 (Tp.); Lytham, c. in 1865 (W.G., Entom. ii., 313); *E.L.* Broughton, near Preston, 1870 (Standen); Middleton, 1870 (Tp.); Grimsargh, 1872 (Standen); Longridge, 1875 (J.B.H.); Ashton-on-Ribble, 1875 (W. H. Heathcote); Southport, 1870 (B. Cooke); Formby, where the late Thomas West, of Liverpool, procured the larvæ in plenty from the labourers in the potato fields, *E.L.* Liverpool, 1884 (B. Cooke, Jr., Y.N., Nov. 1884), 1898 (G. Dunlop), 1899 (S.J.C.); Shudehill Market, Manchester, 1884 (J. R. Hardy); Chat Moss, 1884 (H. Done); Warrington, 1885, 1893 and 1896 (G. Dunlop); Ormskirk, 1886-7-8, larvæ c. on *Lycium barbarum* (J. R. Hardy); St. Annes-on-Sea, 1891, 1893 and 1898 (T.B.); Oldham, 1894 (R. Cottam), 1910 (J. Wigglesworth); Prescot, 1895 (Freeman), 1908 (J. Cot.); Crosby, 1896 (Jones); near Wigan, 1899; Carnforth, 1900, c. (Murray); Patricroft, 1901 (W. Buckley); Warton, 1906 (Charlton), Silverdale, 1907 and 1910 (C. E. Bailey); Fleetwood, 1908 (J. Ranson); Burnley, 1908 (A.E.W.); Grange-over-Sands, 1908 (B.H.C.); Accrington, 1909 (J. Ranson); Burton-in-Lonsdale (Murray); Ainsdale, 1912, a specimen picked up alive on the shore by Mr. A. H. Wood (F.N.P.); St. Helens, 1914 (J. Cot.).

West.—Witherslack, very erratic in its appearance; the last time when it was taken in any numbers was in 1901-2, when numerous larvæ were obtained by the local collectors (J. Smith).

Ches.—Tabley, near Knutsford, 1826: a specimen taken by Sir John Leicester. This, the earliest record we have, is furnished by Lady Leighton Warren, *E.L.*, *D.L.* Heaton Park, 1842-3 (R.S.E.); Beeston, 1846 (Wolley); Christleton, 1858 (Walker's List); Altringham, 1870 (J.C.M.); Hoylake,

abundant, 1874 (J.W.G.); Bowdon, 1878 (J.R.H.); Withington, 1887 (J.R.H.); Vicars Cross, near Chester (P.C.); Carrington, 1901 (Rev. C. S. Stubbs); Knutsford, 1901 (D.); Sale, 1890 (T. Rogers), 1902 (J.R.H.); Acton Grange, 1901 (W. Mounfield); Delamere, 1909 (James Walkden), (A.O.W. in E.L.); Manley, 1889 (N.); near Chester, 1898 (Denson); 1899 (A.); Ecclestone, 1899 (Dr. H. Dobie); Saughall, near Chester (Shrubsole, in E.L.); Kinnerton, 1900 (Dr. H. Dobie); Farndon, 1900 (N.); Malpas, larvæ very abundant 1900 (Th.); Tattenhall (Manning); Lymm, 1905 (G. A. Dunlop and J. A. Jackson); Wallasey, 1887 (Pr.); Bidston, Liscard and Upton, near Birkenhead, E.L.; Tranmere, 1895 (Pr.).

**Variation.**—The late Mr. C. S. Gregson had an interesting aberration of this species in which the dark central band was entirely obsolete in the hind-wings. The specimen was captured at Blackpool.

For a very exhaustive series of articles upon the distribution of this species by R. Standen see Lanc. & Ches. Naturalist, Vols. 3-4, New Series.

#### SPHINX, L.

**Sphinx convolvuli**, L. Occurs occasionally over both counties.

**Lanc.**—Broad Green, near Liverpool, 1893 (S.J.C.); Bury (R. Kay, Entom. ix., 48) and Sept., 1862, by T. Pollit (Zool., xx., 8204); Copley, near Staleybridge, in Oct., 1871 (M. Kershaw, Entom. v., 443); Droylsden in Aug., 1871 (J. S. White, Entom. v., 411); Fleetwood (S.L.M.); Hale (C.S.G.); Manchester (F. Kenderdine, Intell., 1859, ii., 3); Middleton in 1881 (J. Thorpe, Entom., xiv., 254); Staleybridge, Stretford and Barton Moss (J.C.); Southport in 1857 (R. Tyrer, Intell., 1857, ii., 19); E.L.

- Coast sand-hills 26 larvæ on *Convolvulus arvensis* (F. J. Grimshaw); Grange, 4 specimens in Aug. and Sept., 1889 (G. Podmore); 2 captured, several seen, 1891 (G. A. Booth); Crosby, 1895 (G. M. Deville); Otterspool, near Liverpool, 1897 (G. Roxburgh); near Quernmore, larvæ on bindweed, 1900 (C.H.F.); near Halton, 1902 (C.H.F.); St. Annes, two specimens, one at light and one at rest on palings, 1908 (T.B.); Burnley district (W.G.C.); Blackley, 1904 (R.T.); Ancoats, near Manchester, one specimen Sept., 1911 (T. A. Coward, Entom. xliv., 406); Ainsdale, a specimen taken by Mr. Stanley Gibson in Aug., 1915 (W.A.T.).

**Ches.**—Eaton Park, near Chester, 1873; Oxton, and Denhall (W.L.): one at Netherleigh, Chester (J. Thompson); near Chester 1886 and 1892 (N.); Chester (A.); Vicar's Cross, near Chester (P.C.); Ince, 1888 (R. Newstead, Sen.); Bowdon (Tp.); Birkenhead, 1895 (Pr.); Little Budworth, 1897, at rest (Stk.); Wallasey, 1897 (Pr.); Tarvin Sands, one about 1893 (F.); Alderley Edge, 1900 (Chas. Oldham). **D.L.** Between Birkenhead and Hoylake (J. Povall, Entom., viii., 277); Eastham Wood (W.J.); Liscard (N.C., C.S.G.); New Brighton (C.S.G.); Oxton, near Birkenhead (J.F.B., C.S.G.); Claremount Schools, Wallasey (J.W.E.). **E.L.** Leasowe, in Sept., 1915, Mr. T. W. Griffin found eight larvæ, the largest about half grown; early frosts killed all the food-plant, so the moths were not bred.

**Sphinx ligustri**, L. There is only one Lancashire record of this species:—A specimen recorded from Whittle, near Chorley, by Mr. J. B. Hodgkinson. **E.L.**

**Ches.**—Of very rare occurrence in the district. Bowdon, r. (Tp.); one at electric light, Chester, 1898 (Dr. H. Dobie).

#### DEILEPHILA, Och.

**Deilephila euphorbiæ**, L. There are no new records of this scarce species and the following are taken from the Ellis List.

A specimen formerly in the collection of the late C. S. Gregson, captured in an outhouse at Bidston near Birkenhead, by W. Morgan; two larvæ found on *Euphorbia paralias* between Little Brighton and Hightown by C.S.G.; a specimen captured near Bolton in 1865 recorded by J. B. H. and J. C.

**Deilephila galii**, Schiff. This rare species occasionally occurring on the coast sand-hills, some years in fair numbers as in 1870 and again in 1888, is one very likely to suffer by the conversion of so much of its suitable breeding ground into golf courses; this is probably the reason so few have been recorded in recent years.

**Lanc.**—Bolton, Middleton and Staleybridge, very rare (J.C.); Bootle (C.S.G.); Whitefield, near Bury, in 1842 (R. S. Edleston, Zool., i., 31); Lytham in 1859 (W. Gregson, Intell., 1860); Staleybridge, several specimens in Aug., 1870 (D. Joliffe, Entom., v., 168); Warrington, a specimen captured by Miss Greening, Aug., 1870 (N. Greening, Entom., v.,

168); Rivington in Aug., 1879 (T. Calderbank, Entom., v., 181); E.L. St. Annes-on-Sea, 1888, two captured flying over flowers, one at dusk and the other in the middle of the day; some years before these a boy took one flying over honeysuckle at dusk (T.B.); Lytham, 1888, several larvæ (T.B.); Heysham, 1895, larvæ scarce (C.H.F.); Crosby, larvæ in 1897 (Rev. A. M. Moss).

**Ches.**—Ashton-on-Mersey, one in a greenhouse (Rev. C. S. Stubbs); Wallasey Sand-hills, in 1870 and again in 1888 larvæ were abundant, and all the local collectors record having bred imagines the following season; 1897 (Rev. A. M. Moss, W.G., Pr.); 1907, two larvæ found by W. Mallinson, who bred one imago the following year.

**Deilephila livornica**, Esp. An occasional visitor, only taken in odd specimens in widely separated localities.

**Lanc.**—Bury, June, 1877 (R. Kay, Entom., x., 191); Chorlton and Withington in June, 1844 (R. S. Edleston, Zool., i., 736); Hale, in 1847 (C.S.G., Zool., vi., 2032); Middleton in August, 1868 (J. Thorpe, Entom., v., 132); Preston, a specimen captured by James Cooper in 1846, in coll. J.B.H. (Zool., v., 1653). E.L.

New records are:—Burnage, near Manchester, a specimen taken in his garden June, 1878, by H. Massey, now in Mr. B. H. Crabtree's collection (Entom., xxiii., 203); Burnley district, single specimens from Mereclough and Hapton brought to Mr. W. G. Clutton by friends. Knowsley Park, a specimen in June, 1907 (H. R. Sweeting); Blackpool, one in 1909 (T. H. Sheppard, Entom., xiii., 283).

**Ches.**—Knutsford, recorded in E.L. by J.C.

#### CHŒROCAMPNA, Dup.

**Chœrocampa nerii**, L. A very scarce species, Mr. Prince's record indicates that they are immigrants.

**Lanc.**—Manchester, larvæ were found in a greenhouse in Manchester by Mr. T. G. Mason (Proc. Lanc. and Ches. Ent. Soc., 1896); Liverpool, a specimen captured on s.s. Achilles in the docks by Mr. H. B. Prince (Proc. Lanc. and Ches. Ent. Soc., 1903); Ainsdale, a specimen brought alive to Mr. W. A. Tyerman which had been captured by a farmer Sept.

16, 1913; although badly rubbed the insect was easily recognisable.

**Ches.**—The only record is that of a specimen exhibited at a meeting of the Lanc. and Ches. Ent. Soc. as having been taken by Mr. Melvill.

**Chœrocampa celerio**, L. Another scarce species but more frequent than the two preceding.

**Lanc.**—Bolton, three specimens (W.J.); 1873 (J.B.H., Entom., vi., 564); Lytham in Oct., 1870 (W.G. Entom., v., 204); near Manchester, at Preston and at Grange (J.B.H.); two larvæ near Newton Heath about 1846 (R. S. Edleston, Zool., iv., 1346); Oldham, Sept., 1880 (J. Taylor, Entom., xiii., 279); Southport in July, 1871 (E. Bell, Entom., v., 411), and in Sept., 1873 (H. Burton, Entom., vi., 564); Staleybridge (J.C.); Crosby, Sept., 1885 (G. A. Harker). E.L.

New records are as follows:—One found at rest on a wall near Burnley market-place almost in bred condition by Mr. R. Sutcliffe, a local botanist, and now in the collection of Mr. G. B. Rawcliffe (A.E.W.); Lancaster and again in July, 1898 (C.H.F.); Prescot, about 1907, a fine specimen (S. P. Doudney).

**Ches.**—Alderley Edge, May, 1878 (W. W. Keyworth, Entom., xi., 160); Ashton-on-Mersey, a specimen found at rest Sept., 1906, now in Mr. G. Storey's collection (Tait); Lostock Gralam, an example taken in Brunner Mond's works Oct. 6, 1910 (W. Rutter, in L. & C. Nat., 1914, 313); Chester, Sept., 1910 (J. Arkle, Entom., xlvi., 62).

**Chœrocampa porcellus**, L. A fairly common species, especially along the coast-line of both counties, the larvæ can always be found on bedstraw in the autumn.

**Lanc.**—Crosby sand-hills, Lytham, near Manchester in 1850, Patricroft; E.L. Holker Moss, 1892 and 1896 (B.H.C.); Silverdale (W. P. Stocks); Crosby, larvæ 1907 (W.M., L.W.G.); St. Annes and Lytham, 1908 (T.B.); Ainsdale, c. 1912 (W.A.T.); Southport, 1912 (A.E.W.); Quernmore, 1901 (C.H.F.); near Clougha (C.H.F.).

**West.**—Occurs on the Witherslack and Meathop mosses (G. Loxham).

**Ches.**—Dunham Park (J.C.); Delamere Forest and East Cheshire (A.O.W.); Wallasey sand-hills and West Kirby; E.L. Hoylake (W.G.); White Hall, near Tarporley (J. H. Stock); Bowdon, v. local (Tp., Day); Knutsford (Day); D.L. Altringham, 1896 (A.W.B.); Buckerton (Storey); Wallasey, at sugar 1905 (W.M.), 1907-8 (C.B.W.), larvæ, 1913 (W.M.).

**Chœrocampa elpenor**, L. Not so common as *porcellus* and more widely spread in Cheshire and South Lancashire, rare in East Lancashire.

**Lanc.**—Manchester, where it occurred in 1850 at rhododendron flowers (E. C. Buxton, Zool., viii., 2882); Chorley, in 1853 (Id, Zool., xi., 4037); Kenyon and Rixton (J.C.); E.L. Winster, 1897 (J. Cot.); Lakeside, Windermere, 1898, 1900 (Rev. A. M. Moss); Southport, 1903 (R. Dixon-Nuttall); Burnley, one at sugar (A.E.W.).

**Ches.**—Knutsford, Lymm, High Leigh and Withington (J.C.); Wirral (J.F.B.); Delamere and East Cheshire (A.O.W.); Cuddington, scarce; Oakmere dist. a. (N.); Bidston Marsh, larvæ (W.G.); now r. (Pr.); Bromborough and West Kirby (F.N.P.); Wallasey (N.C.); larvæ (H.); E.L. Chester (Dobie); White Hall, near Tarporley, f.c. (J. H. Stock); Malpas (F. H. Wolley-Dod); Rostherne and Warburton (Tp.); Wybunbury Moss, larvæ (Mr. Daltrey), D.L.

#### SMERINTHUS, Latr.

**Smerinthus ocellatus**, L. This species appears to occur wherever its food-plant is found; it is more often taken in the larval state.

**Lanc.**—Recent records are as follows:—Winster, 1900; St. Annes c., Ainsdale, 1908; Crosby, f.c. Knowsley, Rixton Moss and Burnage, near Manchester; Burnley, two in 1912, not previously recorded there (A.E.W.); near St. Helens, c.; Eccles, Southport, 1913 (W. P. Stocks); Urmston, 1913 (W. Buckley); Crosby, 1914 (A.W.H.).

**West.**—Larvæ plentiful on the sallows growing by the sides of the mosses (C.H.F.); Witherslack, 1912, f.c. (J. Smith).

**Ches.**—Wallasey, not so common as formerly, 1904-5, 1909 (W.M.); Delamere, 1909, 1911, 1914; Chester, at electric

light; Carrington, 1906, 1907-8; Lindow, near Wilmslow, 1913 (W. P. Stocks); Ashton-on-Mersey, 1913 (v.c.).

**Smerinthus populi**, L.—Another common and widely distributed species, being found all over the two counties. Although an abundant insect it is well worth breeding as colour variations are frequently so obtained. Mr. Baxter has bred bright pink forms at St. Annes and Dr. P. F. Tinne records the same from Aigburth, Liverpool; the form I have bred from Hale (Lancs.) is a bright dark grey and this seems to be the prevailing variation in South Lancashire.

**Smerinthus tiliæ**, L. We have only two records of this moth, viz. :—

**Lanc.**—One specimen at Prescot in 1893 (Rev. R. Freeman).

**Ches.**—One specimen recorded at electric light, Chester, in 1899 (H. Quinton).

#### MACROGLOSSA, Och.

**Macroglossa stellatarum**, L. This species so frequently mistaken for the humming bird by those who have seen the latter *in statu naturæ*, is fairly common throughout Cheshire and South Lancashire, becoming scarcer towards the North; E.L. Recent records indicate that it is now much scarcer than formerly.

**Lanc.**—Blackpool (S.L.M.); Humphrey Head, near Grange (E.S.); Lytham (J.B.H.); Crosby sand-hills (Geo. Harker and F.N.P.); Bolton (W.J.); Prestwich, a. in 1884 (J.C.M.); E.L. Crumpsall, N. Manchester, one in 1898 (Tait); Burnage, S. Manchester, two (B.H.C.); St. Annes, very few since 1905, formerly a. (T.B.); Wavertree, Liverpool, at sweet william flowers, 1900 (A.H.); St. Helens, 1904 (J. Cot.); Ainsdale, 1911, larvæ c. (W.A.T.); Burnley dist. r. (W. Clutton).

**West.**—Common at Arnside, Meathop and Witherslack in May (G. Loxham). The last time it was common at Witherslack was in 1900-1, when it was general throughout the county also (J. Smith).

**Ches.**—Generally distributed throughout the district, commoner some years than in others, more plentiful on the coast; D.L. Stockport, several in different years (C.F.J.);

Bowdon, one in 1911 (A.W.B.); Wallasey, 1912, larvæ (W.M.).

**Macroglossa fuciformis**, L. (*bombyliformis*, Esp.). The broad bordered bee hawk moth. Recorded as scarce at Bidston, Ches., by J. F. Brockholes in *E.L.*, and is omitted from Day's list; the only recent record is for the Witherslack district.

**West.**—Rare near Meathop bank in late May (G. Loxham); Witherslack dist., uncommon, the last recorded specimen was taken by Mr. Frank Littlewood in 1900 (T.S.).

**Macroglossa bombyliformis**, Ochs. (*fuciformis*, Esp.). The narrow bordered bee hawk moth. Also a very scarce insect in our counties.

**West.**—Occasionally about the mosses at Witherslack and near Meathop Bank in late May (G. Loxham).

**Ches.**—Two specimens recorded as captured at Bidston by C. S. Gregson. The larvæ used to occur on Ribbleton Moor, near Preston, now cultivated (J.B.H.); *E.L.*

#### Fam. SESIIDÆ.

##### TROCHILIUM, Scop.

**Trochilium apiformis**, Clerck. This species has been added to our county list since the publication of Dr. Ellis's list in 1886; it is the poplar feeding moth and if looked for would probably be found more commonly than has hitherto been the case.

**Lanc.**—Crosby, Blundellsands, 1907, "The species appears to be less c. than formerly, many localities having been destroyed, but there are still many trees on which the damage done by the larva is noticeable" (L.W.G.).

**Ches.**—Oxton, near Birkenhead, bred from larvæ from aspen (Sh.); Hough Green, Chester, c. last five years (N.); Upton nurseries, near Chester, and Ince, r. (N.); *D.L.*

**Trochilium crabroniformis**, Lewin (*bembeciformis*, Hub.). A generally distributed and fairly common insect.

**Lanc.**—Manchester dist. general (Tait); Liverpool dist. general (W.A.T.); Knowsley Park (J. Cot.); St. Helens

Eccleston), lar. and pupæ, 1904 (J. Cot.); Ainsdale, 1908 (W.A.T.); St. Annes and Lytham, occ. 1908 (T.B.); Burnley dist. r. 1911 (A.E.W.); Rixton Moss, 1910 (F. Womersley, L. & C. Nat., Feb., 1911); Lancaster, County Asylum Grounds, c. (C.H.F.); Heysham, occ. (C.H.F.); Hornby, occ. (C.H.F.).

**Ches.**—Wirral, c. (W.L.); Wallasey and Rockferry (W.G.); Bidston, "Once in a sallow stem I counted 17 empty pupa cases" (Pr.); Upton nurseries, near Chester (W.L.); Bowdon and Hale (Tp.); Macclesfield (R. South, Entom., xxviii., 267); *D.L.* Stretton, a series by Mr. J. Robinson (L. & C. Nat., 1911, 350); Ashton-on-Mersey (V. Coryton).

#### SESIAS, Fb.

**Sesia sphegiformis**, W.V. Of occasional occurrence only.

**Lanc.**—Chat Moss (R. S. Edleston, Zool., 1845, 1220; and J.C.); Botany Bay Wood in the same neighbourhood (C.S.G.) are the only recorded localities for this moth in the county; *E.L.*

**Ches.**—"A specimen seen on a fence in Delamere Forest in 1901 by Mr. R. Newstead was this species." Suitable alders grow near where the insect was seen.

**Sesia tipuliformis**, Clerck. Generally distributed in South-west Lancashire and Cheshire, but absent, or scarce, in North Lancashire.

**Lanc.**—Bolton (W.J.); Crosby (G. A. Harker); Hale and West Derby (C.S.G.); Huyton (S.J.C.); Southport and Warrington (N.C.); *E.L.* Burnage, one specimen in his garden, 1901 (B.H.C.); Silverdale, 1912 (W. P. Stocks); Southport, local but c. (J.), 1897, v.c. (id.).

**Ches.**—Hough Green, near Chester, and larvæ c. at the Lead Works, Chester (A.O.W.); Bowdon and Withington (J.C.); Wirral, not infrequent (W.G.); Oxton (Sh.); Vicar's Cross (P.C.); Bunbury and Knutsford (Day); Bowdon, c. (Tp., N.); *D.L.* Wallasey, larvæ c. in the market gardens 1907 (J.J.R.); Altringham (A.W.B.); Urmston, 1912 (W. Buckley); Withington, 1912 (W. P. Stocks).

**Sesia myopiformis**, Bork. Taken near Grange station in 1880 by Mr. Murray, of Carnforth (J.B.H. in E.M.M., xvii., 70).

**Sesia culiciformis**, L. If worked for this pretty clearwing would probably be found plentifully in the birch woods on the mosses.

**Lanc.**—Chat Moss, r. (J.C.); *E.L.* Rixton Moss, a series bred from birch stumps, also one imago seen but not captured (J. Collins).

**Ches.**—Hartford, a single example (S.J.C.); Delamere Forest, one at rest 1897 (Tp.); pupæ in birch stumps (M., N.); 1912, one (W.M.); 1914, one (Tait). The late Mr. A. Harrison once obtained a large number of birch stumps containing larvæ at Delamere Forest, but they were accidentally destroyed before the moths were bred.

*Fam. ZYGÆNIDÆ, Gn.*

INO, Leach.

**Ino statices**, L. Very local in both counties.

**Lanc.**—Crosby and Hale Marsh (C.S.G.); Chat Moss (J.C., W.J.); near Chorley (J.B.H.); near Warrington (N.C.); *E.L.* Ainsdale, two in 1912 (W.A.T.).

**West.**—Very local near Witherslack in late June and early July (C.H.F.).

**Ches.**—Delamere Forest (A.O.W.); Knutsford (T. Harrison, Intell., 1857, i., 123); the species has not been taken there for many years (Day); Ince Marshes (N.); *D.L.*

**Ino geryon**, Hub. Only taken in North Lancashire, it is local but not uncommon where it is found.

**Lanc.**—Grange, n.r. (J.B.H.); Silverdale (J.C.M.); 1914, on the occasion of the Manchester Entomological Society's field meeting, when most of those present secured examples (W.M.).

**West.**—Witherslack, locally c. 1901 to 1914, recorded by all the local collectors; 1915 (C.F.J.).

**ZYGÆNA**, Fab.

**Zygæna loniceræ**, Esp. Confined to Cheshire.

Recorded from Knutsford by Thos. Harrison (Intell., 1857, i., 123); *E.L.*; but it has not been taken there for many years (Day); Bidston (J. F. Brockholes and N.C. in *W.L.*).

**Zygæna trifolii**, Esp.

**Lanc.**—Hale Marsh (C.S.G.); *E.L.*

**Ches.**—Bidston Marsh (N.C.); Malpas (A.O.W.); Oakmere and Knutsford (J.C.); *E.L.*; but not taken in recent years (Day); Delamere local and n.c. (H.); *D.L.*

**Zygæna meliloti**, Esp.—“Formerly common near Manchester and on the railway bank near Scorton” (J.B.H.); *E.L.*. There are no records since the above and the species is probably extinct.

**Zygæna filipendulae**, L. Local but abundant where it does occur.

**Lanc.**—All along the Lancashire coast from Blackpool to Crosby; in hayfields all over North Lancashire (J.B.H.); near Bolton (W.J.); Chat Moss (J.C.); *E.L.* Crosby sand-hills, a. (W.M.); Grange near railway embankment (B.H.C.); local but a. (C.H.F.); near Lytham a. (T.B.); St. Annes, f.c. every summer (T.B.).

**Ches.**—Occurs locally throughout the district except in East Cheshire, from whence there are no records. Less common in North Wirral than formerly (Pr.); Wallasey, 1908 lar. abundant (C.B.W.); Bidston, 1908 (C.B.W.).

**Variation.**—About twenty years ago the late T. Baxter took two specimens of the ab. *Chrysanthemi*, Esp., at St. Annes; the usual minor variation in the size and arrangement of the spots is met with but no yellow forms have yet been recorded.

## BOMBYCES.

*Fam. NYCTEOLIDÆ, H.S.*

## SAROTHRIPIUS, Gn.

**Sarothripus undulanus**, Hb. (*revayana*, Tr.). Recorded from Grange and as occurring in plantations near the coast (Cheshire, ?) by C. S. Gregson. *E.L.*

**Hylophila (Halias) prasinana**, L. Usually to be found among birch and oak but not very commonly.

**Lanc.**—Bolton (W.J.); Hale (C.S.G.); Silverdale (J.C.M.); 1909 (W.M.); Winster, 1901 (J. Cot.); Simonswood Moss, a few l. every season (W.M.); Grimshaw Lane, County Asylum grounds, Lancaster, and near Quernmore (C.H.F.).

**West.**—Witherslack and Meathop (C.H.F.).

**Ches.**—Delamere Ft.; Wirral *E.L.*; Chester, at e.l. 1900 (Dobie); Dunham; near Tarporley; Delamere Ft. c. *D.L.* Delamere, 1898 (J.C.); 1915, l.c. (W.M.); Dunham Park, 1909 (G. Bradburn).

*Fam. NOLIDÆ, Gn.*

## NOLA, Leach.

**Nola cucullatella**, L.—Generally distributed over both counties though not often found in any numbers.

**Lanc.**—Fairly common all over the district, *E.L.* Great Sankey (J.Coll.); Freeman's Wood, Lancaster (C.H.F.); St. Annes and Fleetwood, occ. (T.B.); Wavertree, Liverpool, 1908 (W.M.); Ainsdale, 1908 (W.A.T.); Southport, 1909 (W.M.); Hale Bank, 1910-11, f.c. (W.M.).

**West.**—Witherslack (T.S.); 1915 (W.M.).

**Ches.**—Not plentiful except in a few places. Bidston, not so c. as formerly (Pr.); Chester, c. Ince, Helsby and Upton (N.); Knutsford and Dunham Massey (Day); *D.L.* Altringham, few, 1906 (A.W.B.); Brooklands, c. 1910 (G.S.); Wincham, near Northwich, 1910 (A.W.B.); Bowdon, 1910 (A.W.B.); Lostock Gralam, 1910 (A.W.B.); Rostherne, 1911-12 (A.W.B.); Delamere Ft., 1913 and 16 (F.N.P.); Thurstaston, near station, 1913, c. (F.N.P.); Ashton-on-Mersey (V.C.).

**Nola confusalis**, H.-S. (*cristulalis*, Dup.). A scarce species should be looked for on oak trunks in May and June.

**Lanc.**—Grange (J.B.H.), E.L. Do, one in Eggerslack Wood, 1914 (W.M.); Ainsdale, one in 1909 (W.A.T.); Silverdale, 1913 (W.P.S.).

**Ches.**—Puddington (J.F.B.); E.L.

Fam. *LITHOSIIDÆ*, St.

*NUDARIA*, Haw.

**Nudaria mundana**, L. Common only in North Lancs.

**Lanc.**—Preston dist. (J.B.H.); Silverdale (J.C.M.); Winter, 1897 & 99 (J.Cot.); Grange, 1906 (W.M.); Lancaster dist. generally distributed but not c. (C.H.F.); Silverdale (A.E.W.) do. 1911 (W.P.S.); Burnage, one in the garden (B.H.C.); Barley, near Downham, c. (W.G.C.); Pendle Hill, 1915 (W.G.C.).

**West.**—Witherslack, c. (W.M.).

**Ches.**—Eastham Wood and Prenton, near Birkenhead, E.L. Chester; one at e.l. 1900 (Dobie); Little Budworth (Stk) N.E. Cheshire (N.G.); Macclesfield (R.South); Goyt Valley (Day, C.F.J.).

*LITHOSIA*, Fr.

**Lithosia mesomella**, L. The only place where I have found this moth commonly is Delamere Forest, where, on the ridges bordering Bläkemere it was abundant in 1905. I have never been there at the right time since but it is still taken in the same place.

**Lanc.**—Chat Moss and all the other Lancashire Mosses (J.B.H.); Chat Moss and Risley Moss; n.c. (J.C.); Simonswood Moss (C.S.G.). E.L. Near Scotforth, uncl. (G. Loxham).

**West.**—Witherslack (J.B.H.); do. uncl. (G. Loxham); do freq. 1914 (T.S.).

**Ches.**—N.E. Ches. (N.G.); Chester, at e.l. in 1900 (Dobie); White Hall, near Tarporley, at e.l. 1900 (Stk); Little Budworth, sc. (N.); Delamere Ft., c. (A.N.); one in 1899 (A.H.); one in 1900 (Th.); D.L. 1898 (J.Cot.); abundant, 1905 (W.M.); few, 1917 (Carr).

**Lithosia griseola**, Hb. A scarce species noticed only in Cheshire.

**Ches.**—Wallasey and Bidston sc. (J.F.B.); var. *stramineola*, Dbl., is recorded from Dunham-on-the-Hill by A. O. Walker, E.L.

**Lithosia lurideola**, Zinck. (*complanula*, BdV.). Also an uncommon species in Lancashire and Cheshire.

**Lanc.**—Grange (J.B.H.); Prestwich dist. c. (J.C.M.); West Derby (C.S.G.), E.L.

**West.**—Witherslack and Arnside, c. (C.H.F.); Witherslack 1913 (W.M.); 1914 (T.S.).

**Ches.**—Bromborough (W.G.); Bidston Hill (W.I.); Chester (A.O.W.); Delamere Ft. (A.O.W., J.C.); West Kirby (F.N.P.); throughout Wirral, sc. (J.F.B.), E.L. Chester at e.l. not unusual (Dobie); 1899 (A.); Newton-cum-Larton, some years ago (Day), D.L.

**Lithosia sericea**, Gregs. This interesting species, although recorded by the older entomologists from all the large mosses in Lancashire, as well as Witherslack, does not appear to have been taken since the Ellis List was published (this section 1886) except at Rixton and at that locality it is reported as less frequent than formerly.

**Lanc.**—Chat Moss (J.B.H., J.C., W.J.); Simonswood Moss (C.S.G.); Rixton Moss (N.C.), E.L.; usually taken by those who have the entrée to the moss, 1900 (J. Coll.); not many in 1908 (Robinson); 1910 (F. Womersley).

**West.**—Witherslack, local (C.H.F. in 1906).

*GNOPHRIA*, St.

**Gnophria quadra**, L. Another species of rare occurrence, not recorded in E.L.

**Lanc.**—Middleton, once taken in the Coppice Wood, the locality now destroyed (J.T.); Lancaster dist. two at light, 1902 (G. Loxham); near Prescot, once (Rev. R. Freeman); Maghull, one in 1906 (W.A.T.).

**Ches.**—Chester, one at e.l. (Dobie in *D.L.*).

**Gnophria rubricollis**, L. Very rare, no new records.

**Ches.**—Delamere Forest (N.C., J.C.); East Cheshire (A.O.W.), E.L. North-east Ches. (N.G.).

#### Fam. EUCHELIIDÆ, Gn.

##### DEIOPEIA, Curt.

**Deiopeia pulchella**, L. There are no new records of this beautiful moth, the following is taken from the Ellis List.

Only two specimens of this very scarce species have been recorded from the district. One of these, a female, was taken in the railway coal-yard at Middleton Station, Sept. 8th, 1871 (J. Thorpe, Ent. Mo. Mag., viii., 111, and Entom., v., 412), and Mr. Hodgkinson records a specimen in his collection taken at Marple.

##### EUCHELIA, Gn.

**Euchelia jacobææ**, L. Occurs in profusion all along the coast sand-hills of both counties, but is not common inland. Only the inland localities are given.

**Lanc.**—Winster, 1897, 1900-01 (J.Cot.); Holker Moss (B.H.C.); Warton Crag, c. (W.M.).

**West.**—Witherslack dist. abundant (C.H.F., T.S.).

**Ches.**—Delamere Forest, Whitegate Heath (L.N.); Stockport, one, 1906 (C.F.J.); Ince Marshes, v. sc. (N.); Malpas (A.).

**Variation.**—Mr. Forsythe told me that one year, about 1905, he had taken several examples of the yellow form at Warton Crag, but although I have bred considerable numbers from that locality they have all been typical.

#### Fam. CHELONIIDÆ, Gn.

##### NEMEOPHILA, St.

**Nemeophila russula**, L. Generally to be met with on heaths, sometimes commonly.

**Lanc.**—Chat Moss, Rixton Moss, Barton Moss, Silverdale. E.L. Winster, 1897 (J.Cot.); Holker Moss, 1893 (B.H.C.); Quernmore and Clougha, near Lancaster, 1906 (C.H.F.).

**West.**—Witherslack, c. (C.H.F.); 1911 (W.P.S.); 1912, f. c. (T.S.); 1915 (W.M.).

**Ches.**—Carrington Moss, Delamere, Hale. D.L. Delamere Forest, c. 1905-6-7, v. c. 1915 (W.M.).

**Nemeophila plantaginis**, L. Another species almost confined to heaths and mosses, rarely taken in Cheshire.

**Lanc.**—Blackstone Edge, Staleybridge, Chat Moss, Silverdale, c. Longridge, near Preston. E.L. Holker Moss, 1893 (B.H.C.); 1894, (A.); Risley Moss, near Padgate, locally c., 1899 (J.Coll.); Bolton dist. on moors, f. c. (Stott); Burnley dist. r. (A.E.W.); Quernmore and Clougha (C.H.F.).

**West.**—Witherslack, c. (C.H.F.); f. c. 1912 (T.S.); few 1915 (W.M.).

**Ches.**—Rudheath (J.C. in E.L.); Wilmslow, n. c. (Tp. in D.L.); Staley Brushes, n. c. 1914 (H.H.).

**Variation.**—The late T. Baxter told me that he had seen a specimen of the var. *hospita*, Schiff. captured at Witherslack in 1910 and generally speaking Lancashire specimens have much heavier black markings than the Southern.

#### ARCTIA, Schrank.

**Arctia caia**, L. Common, but apparently less so than formerly; this has been noticed in the neighbouring counties also, specially since the introduction of motoring and consequent deposition of dust upon the food-plants of the larvae; further the species has not of recent years received so much attention from variety breeders which may account for the small number of records sent in. It seems to have been more frequently noticed near the coast.

**Lanc.**—North Lancs., c. everywhere (C.H.F.); Ainsdale, 1908 (W.A.T.); Formby, l. (R.T., C.F.J.); Crosby Sand-hills, l. c. (L.W.G.); 1914 (A.W.H.); Lathom (W.A.T.); Knowsley (J.Cot.); Liverpool, Sefton Park, 1907 (J.J.R.).

**West.**—Witherslack, not very common (T.S.).

**Ches.**—Day's List says "Common and generally distributed throughout." Delamere Forest (A.H., B.H.C.); Runcorn, 1906 (W.M.); Wallasey, 1906 and 1914 (W.M.); 1907 (C.B.W.); Carrington Moss, l. c. 1900-1908 (R.T.); Ashton-on-Mersey, 1907 (A. S. Wilson); Altringham, l. (B.H.C.).

**Variation.**—The following is taken from the Ellis List. Many interesting aberrations have been obtained in the district, and are in local collections. Among these may be mentioned a specimen in the cabinet of Mr. S. J. Capper, which was bred by Mr. Lello, in which the fore-wings are nearly unicolorous cream; and a specimen in the collection of Mr. W. Johnson, in which the fore-wings are suffused with brown, and the scarlet of the hind-wings becomes replaced by tawny yellow. Both these are figured in Mosley's Varieties, *Arctia*, pl. ii. Mr. Gregson's collection is singularly rich in varieties of this species.

Unfortunately the collections have been dispersed since the above was written and the specimens have left the district.

*Arctia villica*, L. A very rare species with us.

**Lanc.**—Two specimens taken in Lancaster dist. about 1900 recorded by G. Loxham.

**West.**—Mr. T. Baxter records two specimens from Witherslack about 1908.

**Ches.**—Day's List says "Recorded from Delamere by Mrs. Leather in *W.L.* and from Bowdon by J. C. Melville in *E.L.* but the occurrence is exceedingly exceptional."

#### SPILOSOMA, Curt.

*Spilosoma fuliginosa*, L. Generally abundant as the larva on the mosses and sand-hills specially in the autumn. A second, and sometimes even a third brood, may be obtained from an imago captured in May.

**Lanc.**—Silverdale (W.M.); Heysham, r. (C.H.F.); Clougha, c. (C.H.F.); St. Annes, ab. (T.B.); Ainsdale, usually c. (W.A.T.); Crosby Sand-hills, l. c. (A.W.H.); Bolton dist. occ. (Stott).

**West.**—Meathop, c. (C.H.F.); c. as l. (T.S.); 1917 (W.M.).

**Ches.**—Wallasey to Hoylake by all collectors, c. Prenton, Delamere, Dunham, r. White Hall, near Tarporley (Stk); Macclesfield (R. South); D.L. Lindow Common, 1910 (G.B.); Staley Brushes, 1914 (H.H.); Delamere, 1908, one pupa (W.M.)

**Variation.**—In a long article (Ent. Rec. XVI., 58) Tutt considers our small, dark, Northern form to belong to the Linnaean type and indicates that it is erroneously called var. *borealis*. He also describes a new form as var. *intermedia* and refers to some examples from Warrington.

*Spilosoma mendica*, Clerck. Local and infrequent.

**Lanc.**—Preston, Chorley and Bolton (J.B.H.); Chorley (W.J.); Warrington (N.C.); Blackpool and Withington (J.C.); E.L. Lancaster dist. usually c. (C.H.F.); Silverdale, 1913 (W.P.S.).

**West.**—Witherslack, occl. (Rev. A. M. Moss, A. Graveson).

**Ches.**—Tranmere (J.F.B.); about old gardens in Wirral (C.S.G.); E. Ches. (A.O.W.); Warrington (N.C.); N.E. Ches. (N.G.); Bucklow Hill, near Altringham (J.C.); E.L. Delamere, one in 1893 (A.H.).

*Spilosoma lubricipeda*, Esp. This and the following species are usually common and generally distributed over both counties; a long list of localities has been received the only one of exceptional interest being from Burnley (W.G.C. in 1902) who records a specimen of ab. *ochracea* taken at rest on a wall.

*Spilosoma menthastris*, Esp. The late C. S. Gregson had a beautiful variation taken in the neighbourhood of Liverpool, in which the spots had become elongated forming distinct rays. E.L.

**Spilosoma urticæ, Esp.**

**Lanc.**—Very local. "I have only taken this species near Oakcliffe Hall." G. Loxham in "A List of the Macro-lepidoptera of Lancaster and District" by C. H. Forsythe (Entom. March-August, 1905).

*Fam. HEPIALIDÆ, Gn.***HEPIALUS, Fb.**

**Hepialus humuli, L.** Abundant throughout the district. *E.L.*, *D.L.* This is confirmed by recent records from all parts of Lancashire and Cheshire.

**Variation.**—The late C. S. Gregson recorded in *E.L.* that on the moss-lands of N. Lanc., where the species is exceedingly abundant, a variety of the female is of very frequent occurrence in which the usual red markings are entirely absent, all the wings being of a unicolorous buff; this however does not appear to have been noticed since.

**Hepialus sylvanus, L.** Generally distributed through both counties.

**Lanc.**—Winster, 1897 (J.Cot.); St. Annes, r. (T.B.); Burnley dist. sc. (W.G.C.); Holden Clough, near Oldham, 1914. sc. (H.H.); Bolton dist. c. (Stott); Lathom, ab. but local (W.A.T.); Knowsley, c. (J.C.); Rixton Moss (C.F.J.); near St. Helens, 1897 (J.Cot.).

**West.**—Arnside and Witherslack, f. c. (C.H.F.).

**Ches.**—Widely distributed but local and not generally plentiful. *D.L.*

Wallasey, 1899 (A.H.); Saughall, near Chester and Beeston (A.); Delamere (C.F.J., D.); White Hall, near Tarporley (Stk); Bowdon, c. (Tp.); and Knutsford (D.); *D.L.* Dunham Park (A.W.B.); Styall, 1912 (W.B.L.); Bickerton, n. unc. (G.S.); Cheadle (W.P.S.).

**Hepialus velleda, Hb.** This species is abundant on the mosses and moors wherever its food-plant, the common bracken grows freely.

**Lanc.**—Winster, Silverdale, Lancaster dist. ab., Bolton dist., f. c., Burnley dist., v. c., Oldham dist., c. on moors, Simonswood Moss, c., Knowsley Park, c.

**West.**—Witherslack.

**Ches.**—Eastham Wood, White Hall, near Tarporley, Bowdon, Macclesfield, Delamere Forest, ab., Carrington Moss, Alderley Edge.

**Variation.**—The var. *gallicus*, *Ld.* (*Carnus*, *St.*) is reported from many localities; it probably occurs wherever the type is common. At Burnley about 1 in 7 is this form (A.E.W.).

**Hepialus lupulinus, L.** Generally distributed and plentiful; records have been received from all parts of the district.

**Hepialus hectus, L.** This species is by no means common with us, personally, I have met with odd specimens only during the last twelve years.

**Lanc.**—Aigburth, near Liverpool, Bolton, Croxteth and Hale, Huyton, near Preston, ab., Prestwich. *E.L.* Silverdale, 1909 (W.M.); near Quernmore, v. Local (C.H.F.); Fylde dist. c. (T.B.); Burnley dist. sc. (A.E.W.); Oldham dist. c. on moors (H.H.); near St. Helens, 1897 and 1904 (J.Cot.); Simonswood Moss (J.Cot.).

**Ches.**—Recorded as common but local, ab. at Stockport, Delamere Forest. *D.L.* Delamere, 1906 (W.M.); Gatley, 1901 (B.H.C.); Wythenshawe Wood, Northenden, 1916 (H.B.); Bidston, f. c. 1909 (C.B.W.).

*Fam. COSSIDÆ, H-S.***COSSUS, Fb.**

**Cossus ligniperda, Fab.** Generally distributed throughout the wooded portions of the counties. *E.L.*

**Lanc.**—Hoghton Tower (Kay List); Bolton, c. (Stott); Patricroft and Ainsworth (Stott); Ainsdale (W.A.T.); Formby, l. c. (C.F.J.); 1902 (J.Cot.).

**Ches.**—Appears to be generally distributed and fairly plentiful in some places; mostly seen in the larval state. D.L. Wirral, Bidston, one at sugar (Pr.); Chester dist. occ. as l. (A.); 1889 (Dobie); Tarvin, n. unusual as l. (F.); Delamere trees attacked by l. f. c. (A.H.); White Hall, near Tarporley l. (Stk); Dunham (Tp); Combermere, l. in oak (N.); Farndon, sc. (N.).

ZEUZERA, Latr.

**Zeuzera pyrina**, L., F.S., 306. One of our rare species, chiefly noted at electric light.

**Lanc.**—Burnage, by W. Raeper in 1907 (B.H.C.); a fine male was taken at Withington, S. Manchester, 16-VII.-14, by E. A. W. Faulder (L. & C. Nat. 1914, p. 314); Huyton, a specimen found alive on the doorstep of his house, Aug., 1917 (S.P.D.).

**Ches.**—Chester, four at e.l. (Dobie); one (J. Thompson); at c.l. (A.); Eaton Hall, larvæ in imported apple trees (N.); White Hall, near Tarporley (Stk); Bollington, near Altringham (J. Richardson). D.L. Bickerton, one l. in 1907 (G.S.).

Fam. LIPARIDÆ, Gn.

PORTHESSIA, St.

**Porthesia similis**, Fues. Recorded from all parts of the district as common or very common; Day says "Abundant throughout."

**Variation.**—The late C. S. Gregson had a male taken near Manchester which had the black spot at the apex of the fore-wing joined to the one at the anal angle by a curved black line. E.L. In my own collection there is a male taken at Simonswood Moss in 1908 in which the fuscous spot on the fore-wing is absent; while Mr. S. P. Doudney bred several specimens in 1916 from larvæ found at Huyton in which the tail-tufts are so brown that, at first, he thought the species might be *chrysorrhæa*.

LEUCOMA, St.

**Leucoma salicis**, L. Abundant on coast sand-hills specially in the larval stage, not common inland.

**Lanc.**—Fylde dist. and St. Annes, v. c.; all along the sand-hills from Southport to Waterloo; Simonswood Moss, 1900 (J.Cot.); Burnley dist. r. (W.G.C.); Urmston, 1904 (H. S. Slade), l. 1912 (W.B.).

**Ches.**—Abundant along the Wirral sand-hills and occasionally taken at electric light at Chester. D.L. Flixton, l. 1904 (R.T.).

DASYCHIRA, Steph.

**Dasychira fascelina**, L. This, another of the sand-hill species, occurs in localities similar to the last but is attached to the dwarf sallow instead of to the higher growing kinds; although the moth is not now so abundant as formerly, in some years it is found in good numbers in the larval stage. Recent records are as follows:—

**Lanc.**—Larvæ c. but getting scarcer (T.B. in 1908); Ainsdale, 1908, l. ab. in 1912 (W.A.T.); Formby, a few every year, 1906-7-8 (Dr. Edwards); Crosby sand-hills, l. c. in 1907 (R.W.); Southport, 1912 (L. Nathan).

**Ches.**—Wallasey sand-hills, used to be c. but of late years v. sc. (Pr. in D.L.), l. in 1916 (J.W.G.); Bowdon, r. (Tp. in D.L.).

**Dasychira pudibunda**, L. Generally distributed but nowhere common. E.L.

**Lanc.**—Chat Moss, r. (J.C.); Lytham (W.J.); Preston, r. (J.B.H.); E.L. Between Grange and Lakeside; Holker Moss (R.T.); Silverdale (W.P.S.); near Clougha, local (C.H.F.); Quernmore, unc. (G. Loxham).

**West.**—Witherslack, in woods, n. c., more often as l. (T.S.).

**Ches.**—Widely distributed but nowhere common. *D.L.* Delamere, by all collectors, a few l. in 1916 (W.M.); Eastham Wood (R.W.); Rockferry (W.G.); *E.L.* Chester, at e.l.; White Hall, near Tarporley, occ. (Stk); Bidston, n.c. (Pr.); Shavington Park, on borders of Ches. and Salop, l. 1899 (Th.).

**Variation.**—The form usually taken has the central fuscous band strongly developed and generally with us the species is darker than in the South.

#### ORGYIA, *Ochs.*

*Orgyia antiqua*, L. Widely distributed and usually common, sometimes abundant in the large towns; records have been received from all parts of the area covered by the list.

**Variation.**—At Longridge, near Preston, a small dark form occurred in some numbers (G. T. Porritt in Proc. Ent. Soc. Lond. Oct. 1892). I have seen the specimens referred to and some equally dark were bred by Mr. S. P. Doudney from larvæ taken near St. Helens in 1917. The Wallasey form on the other hand is quite pale in comparison, being lighter than usual London examples of the species.

#### Fam. BOMBYCIDÆ.

##### TRICHIURA, St.

*Trichiura crataegi*, L. One of our rarest species.

**Lanc.**—The only records are a reference in Stainton's Manual, p. 155, to its occurrence in the Preston district, and Silverdale, r. (J.C.M.).

**Ches.**—Reared from l. found at Saighton by Miss H. Smith. *W.L.*; Edge, near Malpas, at light, r. (F.H.W.D.); Aldford, near Chester, one at light in 1900 (N.).

##### PÆCILOCAMPA, St.

*Pæciocampa populi*, L. Generally distributed but nowhere common. *E.L.* Usually found at light.

**Lanc.**—Bolton, Liverpool, Manchester dist., Preston, Warrington, and West Derby. *E.L.* Heaton Mersey, one in 1892 (B.H.C.); Withington (W.P.S.); Silverdale (W.P.S.); Lancaster dist., sometimes c. (C.H.F.); St. Annes, r. (T.B.); Ainsdale, 1908 (W.A.T.).

**Ches.**—Bidston and Birkenhead; Bidston Lighthouse; E. Cheshire. *E.L.* Delamere, one l. in 1894 (C.F.J.); the following records are from Day's List:—Bowdon, n. c. (Tp.); Knutsford, occ. (D.); Pettypool Wood, l. (J.Coll.); White Hall, near Tarporley, several at e.l., 1900 (Stk); Chester (D., N.); ditto, six at e.l. 1898 (Dobie); ditto, c. at e.l. (A.).

##### ERIOGASTER, Gn.

*Eriogaster lanestris*, L. Fairly common in N. Lancashire but not recorded from the South and East nor from E. Cheshire.

**Lanc.**—Between Grange and Carnforth (S.L.M.); Blackpool and Morecambe (J.C.); common all over the Fylde dist. (J.B.H.); ditto, f. c. inland (T.B.); near Grange, 1894 (B.H.C.); Winster, l. 1897 (J.Cot.); Silverdale, l. 1909 (W.M.); Warton, c. (C.H.F.).

**West.**—Arnside (E.S. in *E.L.*); Witherslack, general but not so c. as formerly (T.S. in 1914).

**Ches.**—Chester and West Kirby (A.O.W.); Tranmere, Prenton and Parkgate (W.G.); Upton Valley (J.F.B.); *E.L.* near West Kirby (D.); Wallasey, not so c. as formerly (Pr.); Delamere, l. f. c. (A. H.); Burleydam, l. 1900 (Th.); Chester, l. occ. ab. on South side (N.); ditto as far as Lache Eye (A.) *D.L.*

##### BOMBYX, L.

*Bombyx neustria*, L. This must be considered a scarce species as we have records of only two examples since *E.L.* in 1886.

**Lanc.**—Blackpool and Lytham (J.C.).

**Ches.**—Hoylake (W.J.); West Kirby (C.S.G.); Upton Valley (J.F.B., C.S.G.); *E.L.* Chester at e.l., twice only (Dobie in *D.L.*).

**Bombyx rubi**, L. The larva of this fine species is abundant on heaths and sand-hills in both counties especially in the autumn. Mr. J. W. Griffin bred a fine series from Wallasey larvæ in 1917.

**Bombyx quercus**, L. Also abundant on heaths, mosses and sand-hills but where golf courses have been laid out the moth is much less frequent than formerly; in the elevated Eastern parts of our district the race *calluna*, Palmer, prevails but on the coast etc. we get the true *quercus*, as a rule.

**Variation.**—In addition to the usual range of shades of brown colour variation, the var. *olivaceo-fasciata*, Ckll. (ab. *paradoxa*, Frings) has several times been bred in recent years, as follows :—

**Lanc.**—Formby, a female in 1898 (R.T.).

**Ches.**—Wallasey, a male in 1897 (C.F.J.); ditto, a male in 1907, now in the author's collection (J.J.R.); ditto, a female in 1907 (C.B.W.); the late Dr. Wm. Bell was fortunate enough to breed a pair from Wallasey larvæ in 1908, ova were obtained but the resulting larvæ all died during hibernation; the larvæ were described as black with very dark brown hairs; other observers also stated that the larva which gave this variation was black.

**Bombyx trifolii**, W.V. Occurs on all the coast sand-hills from Blackpool to Wallasey, but is not nearly so plentiful as formerly. Within the last few years the species has been nearly exterminated at Crosby owing to the cupidity of collectors for purposes of exchange. E.L. Since the above was written in 1886 building operations have destroyed several of the best localities and Mr. W. A. Tyerman reports that, according to his observations, cuckoos feed upon the larvæ; in spite of this, recent records shew that the species is not uncommon in restricted areas on the sand-hills.

**Lanc.**—St. Annes, but not since 1888 (T.B.); Formby, l. c. 1894 (R.T.); ditto, several l. 1897 (J.Cot.); Crosby, l. 1890 (G.H.); Crosby, Hall Road, 1908 (L.W.G.); ditto, 1914, l. (A.W.H.); Ainsdale, l. c. 1909, sc. 1910 (W.A.T.); Lanc. coast, l. c. 1915 (Pr.).

**Ches.**—Recorded only from Wallasey sand-hills (A.); ditto, common in former years (Pr.) D.L.

### ODONESTIS, Germ.

**Odonestis potatoria**, L. Abundant in the larval stage; it is rather curious that nearly all the records received are from the neighbourhood of the coast and while Ellis says "Abundant throughout the two counties" Day reports "Common in the Wirral, found locally in Mid-Cheshire, but more scarce Eastwards."

**Variation.**—Males with female colouration and vice versa have been taken, though rarely; thus the late T. Baxter records a male with female colouration and two females with male ditto from Rossall, and the late C. S. Gregson had a female with the wings coloured like the male and possessing a dense black tuft on the thorax which was captured in the vicinity of Liverpool.

### LASIOCAMPA, Latr.

\***Lasiocampa quercifolia**, L. A single specimen captured near Crewe is our only record of this fine species; reported by Mr. G. Storey.

### Fam. SATURNIIDÆ, Bdv.

#### SATURNIA, Schr.

**Saturnia pavonia**, L. Generally distributed on Heaths and Moorland in both counties; the male can be taken freely by "assembling" with a virgin female in a suitable locality.

**Variation.**—In the late C. S. Gregson's collection was a splendid aberration of this species taken at Bolton; it was a male in which the whole of the markings were so suffused with the dark ground-colour that the insect appeared nearly black. E.L. Generally speaking, I think our moorland form is more richly coloured and darker than Southern examples.

### Fam. DREPANULIDÆ, Bdv.

#### DREPANA, Schr.

**Drepana lacertinaria**, L. Common among birch on all the mosses of Lancashire, and in similar localities, Delamere for instance, in Cheshire. E.L. Rather more uncommon than *falcataria*.

D.L. This, from my own experience, would seem to be another species which has unaccountably become scarce in recent years, as although I have worked the mosses and Delamere Forest for the last eleven years I have never captured this moth in any stage in our counties; the following are all the records I have received, viz. :—

**Lanc.**—Chat Moss, n. c. (Kay List); common among birches at Rixton and Glazebrook mosses and at Woolden Wood, Chat Moss (J.Coll.); Rixton, 1910 (F. Womersley).

**West.**—Witherslack, f. c. (C.H.F., in 1906); c. (T.S.).

**Ches.**—Delamere Forest by all the local collectors; near Knutsford, sc., and Holford Moss, n. unc. (D.); Wilmslow, c. (Tp.); Wybunbury Bog, l. 1888 (Tp.); D.L. Delamere, l. 1910 (C.F.J.); Rudheath (A.W.B.).

**Drepana falcataria**, L. Common where birch grows freely. E.L. This is still a common species, I take the larva freely each autumn and the moth is easily disturbed in early summer; I have recent records from all the mosses etc.

**Variation.**—This again is a richer and darker insect than the Southern form; the darkest specimen I have seen was exhibited by Mr. Wm. Mountfield of Warrington; it was of an unicolorous dark brown and was captured in 1907 in Delamere Forest.

**Drepana binaria**, Hufn. Another very scarce species with us, I have only two records, viz. :—

**Ches.**—One at e.l. Chester (Dobie) and another recorded by R. Newstead.

#### CILIX, Leach.

**Cilix glaucata**, Scop. This pretty little moth is generally distributed over both Lancashire and Cheshire, as shewn by the numerous records received from all parts of the two counties. Some years it is locally abundant, as at Hale Bank in 1905, when it could be taken freely in all stages at the same time (W.A.T.); very few reports however refer to it as "Common."

#### Fam. DICRANULIDÆ, Bdv.

##### DICRANURA, Latr.

**Dicranura bicuspis**, Bork. This scarce species was first taken in England by James Cooper, on an alder near Preston, in 1847 (Zool. V., 1863). Since that time its occurrence all round Preston has been occasional, in some years as many as eight or nine specimens being taken in a week by Mr. Hodgkinson. Also recorded from near Stoneyhurst (J.B.H., Entom., XIII., 204). E.L.

**Ches.**—Day's List has the following from Cheshire:—Wybunbury Moss, two l. (F. C. Woodforde); White Hall, near Tarporley, two fine specimens in 1901 and 1902 (J. H. Stock); Chester, one at e. l. (A.).

##### Dicranura furcula, L.

**Lanc.**—All round the Preston dist. (J.B.H.); Chat Moss, r. (J.C.); E.L. St. Annes, r. (T.B.); Ainsdale, 1908 (W.A.T.); Crosby sand-hills, l. 1906 (W.M.).

**West.**—Witherslack and Meathop, c. as l. (C.H.F.); f. c. as l. (T.S.).

**Ches.**—Delamere Forest, r. (J.C.); Wirral, sc. (J.F.B.); E.L. Delamere, one l. in 1900, and another in 1906 (R.T.); ditto 1904 (C.F.J.); ditto, one specimen (N.); Chester, one at e. l. (Dobie); ditto, occ. at e. l. (A.); N. Ches. (N.G.); Wallasey, r. 1917 (J.W.G.).

##### Dicranura bifida, Hb.

More frequently taken than the last.

**Lanc.**—Generally distributed (J.C.); Crosby, sc. (G. A. Harker, and F.N.P.); Preston dist. (J.B.H.); E.L. St. Annes, r. (T.B.).

**West.**—Witherslack and Meathop, sc. (C.H.F., G. Loxham).

**Ches.**—This is an insect that the electric light has proved to be more common at Chester than was generally supposed; it is found very sparingly in the district generally. Chester, c. at e. l. (A., Dobie, N.); ditto, l. occ. on poplar (A.); Knutsford, l. occ. (D.); Delamere, l. 1897 (A.H.); Wallasey, sc. (Pr.); Hale, n. c. (Tp.); N. Ches. (N.G.). D.L.

**Dicranura vinula**, L. A common species all over the two counties; Mr. T. Smith however, says of the Witherslack district "General but not very common."

Fam. NOTODONTIDÆ, Gn.

PTEROSTOMA, Germ.

**Pterostoma palpina**, L. A very scarce species.

**Lanc.**—St. Annes, one in 1888 (T.B.).

**West.**—Meathop, l. unc. (C.H.F.).

**Ches.**—Puddington, one in 1864 (J.F.B. in E.L.); Delamere, two l. in 1893 (A., Entom. XXVI., 247).

LOPHOPTERYX, Steph.

**Lophopteryx camilina**, L. Another common and generally distributed species; on the mosses it is always to be found, and I have even taken both larva and imago on the outskirts of Liverpool.

**Variation.**—The moth varies from rufous to dark brown, the extreme forms are scarce, the majority being of a reddish brown colouration.

NOTODONTA, Och.

**Notodonta dictæa**, L. Not a common moth although reported from most parts of our counties, usually in single specimens; it seems to be more frequent near the coast.

**Lanc.**—St. Annes, l. c. (T.B. in 1908); Southport (C. E. Stott); Ainsdale, 1908 (W.A.T.); two l. 1916 (W.M.); Formby, one l. 1895 (C.F.J.); Crosby, few l. 1914 (A.W.H.); Knowsley, 1900 (J.Cot.); Burnley dist., one in 1907 (A.E.W.); Bolton dist. n. c. (C. E. Stott); Burnage, one (B.H.C.); Urmston, 1912 (W.B.); Withington and Eccles, 1913 (W.P.S.).

**West.**—Witherslack, local and n. c. (C.H.F.).

**Ches.**—Wallasey, 1906-7 (C.B.W., W.B.); 1917, l. f. c. (J.W.G.); Ashton-on-Mersey, 1911-12 (V.C.); Brooklands, r. (G.B.); Altrincham, l. 1907 (J.E.R.A.); one in 1911 (A.W.B.); Ches. Localities in D.L. are N. Cheshire, Delamere Forest; Ashley; Knutsford; White Hall, near Tarporley, occ.; Wybunbury Moss; Chester, c. at e. l.

**Notodonta dictæoides**, Esp. Of frequent occurrence on the moss-lands, fairly common some years, but usually taken as the larva in September.

**Lanc.**—Chat Moss, and Risley Moss (J.C.); Crosby (F.N.P.); near Longridge (J.B.H.); E.L. Simonswood Moss, taken every year, the l. sometimes c. as in 1917 (W.M.); Knowsley (J.Cot.); Rixton Moss (C.F.J.); Ainsdale, 1909 (W.A.T.); Old Trafford (E. Petrie).

**West.**—Never very common at Witherslack, l. in Sept. (T.S.).

**Ches.**—Delamere Forest, the l. can usually be beaten in autumn, but not commonly; recorded by all who have worked there; Ashton-on-Mersey (Stb, R.T.); Warburton (Tp); Wybunbury Bog (F. C. Woodforde); ditto, l. 1888 (Th.); Chester, at e. l. (Dobie, A., N.); White Hall, near Tarporley, occ. at e. l. (Stk); D.L.

**Notodonta dromedarius**, L. The larva is very common on the mosses, where it may be beaten from birch. In my experience nearly all the larvae are stung and it is advisable to collect only those which are nearly full-fed, as the parasites seem to quit the host when it is about half-grown; the imago is most frequently taken at light.

**Lanc.**—Preston dist., not r. (J.B.H.); Simonswood Moss, v. c. as l. (W.M.); Knowsley Park (J.Cot.), 1915 (W.M.); Rixton Moss (R.T.); Burnage, 1893 (B.H.C.); Eccles, 1894 (W.P.S.); Ainsdale, l. c. 1912 (W.A.T.); Crosby Sand-hills, l. 1913 (A.W.H.); Burnley dist. sc. (A.E.W.).

**West.**—Witherslack, f. c. (T.S.); dark forms occ. (Littlewood).

**Ches.**—Bidston and Rockferry, n. c. (J.F.B.); ditto (J.W.E.); *E.L.* Bidston, n. c. (Pr.); Chester, at e. l. 1899 and 1900 (Dobie, A.); Delamere Forest dist. l. generally c. every year (W.M.); Ashton-on-Mersey (R.T.); Brooklands, r. (G.B.); Sale and Dunham, l. (R.T.); Bowdon (Tp.); Carrington Moss (Stb., D.); Stockport, once (C.F.J.); Wybunbury Bog, l. (F. C. Woodforde), ditto, 1888 (Th.) *D.L.*

**Variation.**—The form generally occurring with us is the var. *perfusca*, St. and modifications thereof; but I have bred from Delamere larvæ specimens intermediate between *perfusca* and the Southern form usually regarded as the type (W.M.).

**Notodonta ziczac**, L. Fairly well distributed over the two counties but never common, although one may sometimes find a good number of larvæ together.

**Lanc.**—Crosby, c. (F.N.P.); Chat Moss, Barton Moss and Kenyon, r. (J.C.); Preston dist. not r. (J.B.H.); Simonswood Moss (F.N.P., J.W.E.). *E.L.* Cronton, a series bred, 1904 (W.A.T.); Knowsley Park (J.Cot.); near St. Helens, 1897-8 (J.Cot.); Crosby, 1906 (L.W.G.), few l. 1914 (A.W.H.); Formby, 1897 (J.Cot.); Ainsdale, 1908 (W.A.T.); St. Annes, l. f. c. (T.B.); Silverdale, 1913 (W.P.S.); Southport, 1914 (L. Nathan); Urmston, l. 1910 (W.B.); Old Trafford, 1906 (E. Petrie); Bolton dist., n. unc. (C. E. Stott).

**West.**—General but not common (T.S. in 1911).

**Ches.**—A frequent visitor to light at Chester. Near Warrington (J.Coll.); White Hall, near Tarporley, occ. at e. l. (Stk); Knutsford, l. occ. (D.), *D.L.* Delamere Forest, a series bred 1906 (A.H.); Ashton-on-Mersey, six l. 1908 (R.T.); Brooklands, occ. (G.S.); Stockport, l. occ. (C.F.J.); Wallasey, local and n. c. 1917 (J.W.G.).

**Notodonta trepida**, Esp. There are no recent records; the following taken from Day's List is all the information we have.

**Ches.**—Northwich, one (Tp.); Mr. Thorpe states his brother took another near the same spot subsequently; Delamere Forest recorded in *E.L.* on the authority of S. J. Capper,

J. C. Melville and E. C. Buxton in *Zool.*, IX., 1851, p. 3181; Pettypool Wood, May 1851, N. Cooke in *Zool.*, Ser. I., Vol. X., p. 3515. Also recorded in Cheshire, within twelve miles of Warrington, by N. Greening.

**Notodonta Chaonia**, Hb. Another very scarce species for which we have no recent records.

**Ches.**—Delamere Forest, a female in 1891 from which several were bred the following year (R.T.); 1892 (T. G. Mason); Eastham Wood, one (N.N.C. in *W.L.*); Dunham Park, r. (J.C.); Timperley, one (J.C.); two at Hooton (T. Harris, in *E.L.*).

**Notodonta trimacula**, Esp. (*Dodonea*, Hb.).

**Ches.**—Recorded from E. Cheshire on the authority of N. Greening in *W.L.*; also from Bowdon, n. c. by J. Thorpe. It has not been found in recent years. *D.L.*

*Fam. PYGÆRIDÆ, Gn.*

**PHALERA**, Hb.

**Phalera bucephala**, L. Common throughout the whole of both counties. The larva is sometimes locally so abundant as to do considerable damage: as, for instance, at Chester where Newstead recorded it as killing young poplars.

**PYGÆRA**, Och.

**Pygæra curtula**, L. We have only one record for this moth, and that from just over the Lancashire boundary in Westmorland.

**West.**—Near Meathop Bank, bred from larvæ (C.H.F.).

**Pygæra pigra**, Hufn. (*reclusa*, W.V.). The only record of the occurrence of this species in either county is found in the *addenda* to Mr. Gregson's list of Liverpool Lepidoptera: "A single specimen in an old wood at Kirkby, Lanc." *E.L.*

## Fam. CYMATOPHORIDÆ, H.-S.

## THYATIRA, Och.

*Thyatira derasa*, L. Pretty general but not common.

**Lanc.**—Huyton and Hale (S.J.C.); Hale and the Dingle near Liverpool (C.S.G.); Preston, c. (J.B.H.); E.L. Lancaster dist. f. c. (C.H.F. in 1906); Silverdale (W.P.S.); Lathom, one in 1906 (W.A.T.); Simonswood Moss, 1901 (J.Cot.).

**West.**—Witherslack, f. c. (C.H.F.).

**Ches.**—Bowdon and Delamere (J.C.); Bidston, c. (C.S.G.); Lymm (J.C.M.); West Kirby (F.N.P.); Chester Society's dist. n. unc. (A.O.W.); E.L. Bidston (Sh., Pr.); 1908-9, sc. (C.B.W.); one in 1917 (J.W.G.); Chester, occ. at e. l. (Dobie); Heron Bridge, near Chester (D.); White Hall, near Tarporley, occ. (Stk.); Delamere, f. c. (A.H., J.Coll.); 1905, (W.M.); Dunham, sc. (Tp.); D.L. Wallasey, one in 1907 (C.B.W.); Oxton, sc. 1908-9 (C.B.W.); Wythenshawe Wood, (C.B.W.); near Northenden, 1906 (E. Petrie), 1915-16 (W.B.L.).

*Thyatira batis*, L. General and perhaps rather more frequent than the last.

**Lanc.**—Simonswood Moss, sc. (W.M.); Sale Wood, St. Helens (J.Cot.); Winster, 1900-01 (J.Cot.); Grange, 1901 (J.Cot.); Lancaster dist., f. c. (C.H.F.); Lathom (W.A.T.); Halsnead, l. 1905 (J.Cot.); Silverdale, 1911 (W.P.S.); Pendle Hill, 1915 (W.G.C.).

**West.**—Witherslack (C.H.F.).

**Ches.**—Eastham and Puddington (W.L.); Storeton (W.G.); Bebington (Sh.); Ince Marshes, v. r. (N.); Chester, and at e. l. (D., N., A.); Edge, near Malpas, r. (F.H.W.D.); White Hall, near Tarporley occ. (Stk.); Delamere, f. c. (A.H.); near Cuddington, f. c. (D.); Holford Moss, f. c. (D.); Ashley, Hale and Bowdon (Tp.); D.L. Wallasey, one 1907 (C.B.W.); Carrington, occ. (R.T.); Sinderland, near Altringham, 1912 (R.T.); Wythenshawe Wood, near Northenden, 1915-16 (W.B.L.).

## CYMATOPHORA; Tr.

**Cymatophora or., Fb.** Occurs occasionally about Preston (J.B.H.); near Ribchester (J.B.H., Entom. xiii., 105). E.L. There are no recent records.

**Cymatophora duplaris**, L. Abundant on the mosses; there are no records from E. Lanc. and E. Cheshire, nor from the coast.

**Lanc.**—Between Huyton quarry and Roby (C.S.G.); Preston dist., n. r. (J.B.H.); Chat Moss and Worsley, n. c. (J.C.). E.L. Simonswood Moss, abundant every year (W.M.); Knowsley Park, v. c. 1899 (J.Cot.); Winster, 1899, 1900-01 (J.Cot.); Rixton Moss (C.F.J.); Halsnead, 1905 (J.Cot.); Liverpool, Sefton Park, 1907 (J.J.R.).

**West.**—Witherslack Mosses, local (C.H.F.); c. 1912 (T.S.).

**Ches.**—Prenton Wood (J.F.B.); E.L. White Hall; near Tarporley (Stk.); Delamere, every season, sometimes abundant (W.M.); Holford Moss (D.); Dunham Park (Tp.) c. 1899 (R.T.); D.L. Carrington, usually c. (R.T.); Altringham (A.W.B.); Brooklands, occ. (G.S.); Bowdon, 1914 (R. Rhodes).

**Variation.**—Nearly all we get in our counties are referable to var. *obscura*, Tutt. At Delamere intermediate forms occur in fair proportion, and generally speaking the darkest

examples from that locality are not nearly so melanic as those from Simonswood. The moth varies very much in size also, this I attribute to the fact of the larva feeding so late in the autumn that the birch becomes too dry to nourish them properly; I have captured very small specimens, while the largest are considerably smaller than my series of the typical form from Cornwall.

## ASPHALIA, Hub.

**Asphalia diluta**, Fb. There are few recent records of this local moth.

**Lanc.**—Oak Woods at Hale, abundant (C.S.G.); Mere Clough, Bury, unc. (J.C.). E.L. Knowsley Park (J.Cot.); Winster, 1899, five specimens (J.Cot.); Newby Bridge (B.H.C.).

**Ches.**—Eastham, occ. (C.S.G.); *E.L.* Chester, one at e. l. 1901 (A.); Delamere, one at sugar, 1893 (D.) *D.L.*

**Asphalia flavicornis**, L. Common on all the mosses and occasionally found elsewhere.

**Lanc.**—Longridge (J.B.H.); Chat Moss and Risley Moss (J.C.); Liverpool dist. (C.S.G.); Simonswood Moss, usually abundant (W.M.); *E.L.* Knowsley Park, c. (J.Cot.); Burnley, one in 1908 (A.E.W.); Chadderton, formerly, not now (J.T.); Bolton, n. c. (C. E. Stott).

**West.**—Common at Witherslack (T.S. in 1914).

**Ches.**—Bidston Park Wood, sc. (N.G. in *W.L.*); Eastham Wood, *E.L.* Wallasey, now v. sc. (Pr.); Chester, two at e. l. 1900 (Dobic); Delamere, usually c., sometimes abundant; White Hall, near Tarporley (Stk); Rudheath (C.F.J., D.); Knutsford (D.); Wilmslow (Tp); Macclesfield, l. v. c. (R. South); *D.L.* Carrington Moss (J.C.); Woolston Moss (W.P.S.); Bidston Wood, 1913 (A.W.H.).

**Asphalia ridens**, Fb. Very rare.

**Lanc.**—One specimen taken in the Boor's Wood, Hale, by Frederick Hitchmough (C.S.G.); on the Lancashire side of Windermere (J.B.H.); Staley Brushes, r. (J.C.) *E.L.*

**Ches.**—South Timperley, one in 1908 (N. H. Davison).

### NOCTUÆ.

#### Fam. BRYOPHILIDÆ, Gn.

##### BRYOPHILA, Tr.

**Bryophila algæ**, Fab. In the collection of the late Joseph Sidebottom (now in the Manchester Museum) are two specimens of this species captured at Disley, Ches. and obtained by him from R. S. Edelston's collection (*E.L.*) Mr. C. G. Barrett remarks in his Lepidoptera of the British Isles, Vol. VI., p. 214:—"No other case of the occurrence of the species in these Islands is known, and it can only be supposed that these two specimens were by some accidental means introduced." (*D.L.*)

**Bryophila muralis**, Forst. (*glandifera*, Hub.). The only record we have of this moth is two specimens taken at Chester by S. Gordon Smith in 1889.

**Bryophila perla**, Fb. Common throughout Lancashire and Cheshire but scarce in E. Lanc.

**Variation.**—Invariably pale in the limestone dist. of N. Lanc., more distinctly marked in S. Lanc. and darker. For an interesting paper on the variation of *perla* in the Wirral see Standen, L. & C. Nat., Vol. XI., p. 193, in which he records the occurrence of the yellow form var. *flavescens*, Tutt. In 1918 I took six fine examples of this form at Wavertree in the Liverpool dist., as well as several var. *suffusa*, Tutt. Mr. W. A. Tyerman records a bright rosy specimen from Cronton, S. Lanc.

#### Fam. BOMBYCOIDÆ, Bd.

##### DEMAS, St.

##### **Demas coryli**, L. Scarce.

**Lanc.**—Dolphinholme, nr. Lancaster (J.B.H.); Grange, local (E.S.); Croxteth Park, nr. Liverpool (C.S.G.); *E.L.* Grange (C.H.F.).

**Ches.**—Only one record, a larva taken by G. O. Day, nr. Whaley Bridge, in the extreme E. of Ches. (*D.L.*).

**West.**—Arnside (C.H.F.).

ACRONYCTA, *Och.*

**Acronycta tridens**, Schiff. Another scarce species.

**Ches.**—Wallasey and Ness (J.F.B.); Chester and E. Ches. (A.O.W.); *E.L.* One l. nr. Chester (N.); N. Ches. (N.G. D.L.).

**Acronycta psi**, L. Common everywhere in the two counties, it has been recorded from all parts.

**Variation.**—It is interesting to note that, in my experience, this insect runs paler on the moss-lands than elsewhere; var. *suffusa*, Tutt, has been recorded from Delamere, one in 1904 (S.G.S.).

**Acronycta leporina**, L. This is one of our most interesting species because of its tendency to melanism; generally to be found where birch grows, it occurs most freely on the mosses but never seems to be plentiful.

**Variation.**—The prevailing form is var. *bradyporina*, Tr., the type being very rare if not entirely absent. A dark suffused variation with black thorax, var. *melanocephala*, Mansbr. (Entom. Vol. XXXVIII., p. 289), occurs on the mosses of S. Lanc. and Ches. I have bred var. *virgata*, Tutt, from Simonswood Moss but have never seen captured specimens. A quite black variety has been taken just over the border of Cheshire but has not yet been recorded for our counties.

**Acronycta aceris**, L. Another very scarce species, there are no records since 1886.

**Ches.**—Recorded from Ashton-on-Mersey, where it is not common, by Mr. Chappell, and from Delamere Forest by Mr. A. O. Walker. (*E.L.*)

**Acronycta megacephala**, Fb. Common and general in both counties but not so frequent in N. Lanc., sometimes abundant in towns where poplar is planted in gardens.

**Variation.**—A black form, var. *nigra*, Tutt, was so named on the strength of a single specimen said to have been taken at Manchester. I have never been able to get any farther information about this from the local collectors and the above record seems to be unique. As often happens, our specimens are darker than Southern.

**Acronycta alni**, L. Found occasionally in both counties, usually as the larva or at electric light.

**Lanc.**—Grange, (J.B.H.); two l. near his own house at Huyton, Aug., 1871 (S.J.C., Entom., V., 417); nr. Manchester in 1868 (J. Leigh, E.M.M., ii., 105); an imago at sugar, June, 1850, at Speke Hall (C.S.G.). *E.L.* Simonswood Moss, one at sugar, 14/6/01 (J. Cot.); Warrington, a melanic example captured at Crosfield's Soap Works (F. Womersley); Burnage, one l., 1900 (B.H.C.); Cronton, one l. (W.A.T.); Knowsley, three l. (J. Cot.); Wigan, one l., 1920 (J. H. E. Hopkins).

**Ches.**—Delamere, l. 1877 (Leather in *W.L.*); one l. 1899 (H.); Chester, f.c. at e.l. (A., N.); seven in 1899 and 1900 (Do.); White Hall, Tarporley, six at e.l. 1900, including black variety (Stk.); Manley and Eaton, nr. Chester, l. (N.); Little Budworth, black var. at e.l. (N.); Dunham Park, in 1842 (J.B.H. in *E.L.*); also in 1872 and 1879 (J.C. in *E.L.*); ditto, at sugar and also as l., n.c. (Tp.); Hale Moss, nr. Altrincham, Aug., 1863 (E. M. Geldart, in *E.L.*); Marple (J.C. in *E.L.*); Knutsford, l. (Day); Delamere, one pupa 1906, an almost black moth emerged (R.T.); one very dark (A.H.); one in 1918 (S.G.S.); 1919, one l. (S.P.D.); Sale, Birkenhead, one l., 1919 (W.M.); Chester, 1920, two at e.l., one being black (S.G.S.).

**Variation.**—This species is usually much darker than the type. A specimen bred by G. O. Day from a l. found at High Legh, Ches., had the f-ws entirely black, and Mr. Tait's specimen had almost entirely black f-ws; we also have Mr. Smith's black specimen from Chester last year.

**Acronycta ligustri**, Fb. Scarce except in the Windermere district, where it is sometimes common.

**Lanc.**—Speke, Hale and Rainhill (C.S.G.) (*E.L.*); Lancaster (C.H.F.); Corporation Wood, Quernmore (G. Loxham); Winster, 1897, 1900 and 1901 (J. Cot.); Grange, Eggerslack Wood, one, 1917 ((A.E.W.)).

**Ches.**—Only one record taken: at Old Marsh Lane, Ince, by Mr. Newstead (A.O.W. in *E.L.*).

**Variation.**—Dr. John Cotton took the black form, var. *nigra*, Tutt, commonly with the type at Winster.

*Acronycta rumicis*, L. Fairly common.

**Lanc.**—Knowsley Park, 1897, 1898 and 1899 (J. Cot.); near St. Helens, 1898, and Simonswood Moss, 1899 (J. Cot.); Winster, c. 1897, 1899 and 1901, also var. *salicis* (J. Cot.); St. Annes (A.E.W.); 1920, one l. (W.M.).

**Ches.**—Delamere Forest, c. recorded by all who collected there. Carrington, c. (R.T.); Wallasey, 1908 (C.B.W.); 1915 (J.W.G.); Bickerton, l. c (Storey); Brooklands (Storey); Bidston, 1909 (C.B.W.).

**Variation.**—The black var. *salicis*, Curt., occurs wherever the type is common. The Windermere form of the type is very clearly marked with black and white.

*Acronycta menyanthidis*, View. Usually to be found, and sometimes common, in the moss and moorland districts.

**Lanc.**—All the high moors in N.E. Lanc. (J.B.H.); Bolton (W.J.); Chat Moss (W.J. and J.C.); Risley Moss (J.C.); Longridge, Withnell and Staleybridge (J.C.M.); Pilling Moss (J.B.H.); E.L. Holker Moss, in 1903 and 1905 (B.H.C.); Rixton Moss (C.F.J.); Simonswood Moss (R. Freeman); Burnley dist., some seasons scarce, in others c., as in 1915 and 1918 (A.E.W.); Clougha, n. c. (C.H.F.).

**Ches.**—Carrington Moss and Lindow Common (J.C.); Delamere Forest (F.N.P.) E.L. Delamere Forest, n. c. (Day); Lindow Common (Tp.); Macclesfield, c. as l. (R. South); D.L. Abbott's Moss, Del. Ft, 1903 (A.H.); 1915 (W.M.); 1920 (S.G.S.).

**West.**—Meathop Moss, n. c. (C.H.F., W.M.).

**Variation.**—Delamere specimens are sometimes slightly suffused with black, but nothing like the Yorkshire melanic form has yet been recorded.

DILOBA, *Bdv.**Diloba caeruleocephala*, L. Generally distributed throughout both counties, locally abundant. The larvae may be found freely in old thorn hedges bordering quiet lanes, the imago usually occurring at light.LEUCANIA, *Och.*

**Leucania conigera**, Fb. Never a common moth, it is less so now than formerly, owing to changes in its habitats due to building and the extension of golf links.

**Lanc.**—Crosby, on ragwort (E.); Preston, occ. (J.B.H.); E.L. Knowsley Park (J. Cot.); Hale Bank, one bred 1907 (W.M.); Grange, c. at valerian flowers, 1918 (A.E.W.); Ainsdale, in 1913 (W.A.T.); Eccles (W. P. Stocks).

**Ches.**—New Brighton and Dacre Park, nr. Birkenhead (C.S.G.); Rockferry (J.F.B.); E.L. Bidston (Sh.); Tarporley, f. c. (Stk.); Wallasey (M., Pr.); D.L. Also in 1907 (C.B.W.); Chester, at e. l. in 1918 (S.G.S.).

## Leucania turca, L.

**Ches.**—Rare at sugar in Dunham Park (J.C.), confirmed by J.B.H., it has not been recorded since. E.L.

**Leucania lithargyria**, Esp. Widely distributed, it has been recorded as common from all parts of the two counties.

## Leucania obsoleta, Hb.

**Ches.**—Used to be taken abundantly on Bidston Marsh by C.S.G. and Mr. Townley; there are no records since. E.L.

**Leucania littoralis**, Curt. The larva is abundant on the coast sandhills where it feeds on the marram grass in May. The species has never been recorded inland.

**Leucania comma**, L. Common towards the coast-line of both counties, becoming scarcer inland. E.L.

**Lanc.** Winster, 1897 (J. Cot.); N. Lanc. c. (C.H.F.); Wigan, c. 1920 (C. H. E. Hopkins); Knowsley (J. Cot.); Simonswood Moss, 1900 and 1905 (J. Cot.); Sefton Park, Liverpool, 1907 (J.J.R.).

**Ches.**—Wallasey, c. to all collectors; Rudheath (A.W.B.); Chester, 1899 (S.G.S.); Delamere, few, 1919 (S.G.S.); 1920 (J.W.G.). The following additional localities are given in Day's List:—Vicar's Cross (P.C.); Oxton and West Kirby (Sh.); White Hall, nr. Tarporley (Stk.); Holford Moss, c. (Day).

***Leucania straminea*, Tr.**

**Ches.**—Taken by Mr. C. S. Gregson and Mr. Townley, from flowers growing in ditches between Leasowe lighthouse and Meols. There are no records since.

***Leucania impura*, Hb.** This and the following species are recorded from all sections of the two counties and they are probably common everywhere.

***Leucania pallens*, L.** Abundant and generally distributed.

**CALAMIA, Hb.**

***Calamia phragmitidis*, Hb.** This species has probably been overlooked, it is not mentioned in *E.L.* but there are several records since 1886; the moth should be sought amongst ribbon grass in marshy places in September.

**Lanc.**—The only Lanc. locality yet noted is Warrington, where the insect is common (*J. Coll.*, *C.F.J.*).

**Ches.**—Chester, the Lead Works, at light, 1858 (*W.L.*); 1889, one at e.l. (Dobie); ditto and Ince Marshes (*N.*); Carrington (*Stb.*); Cheshire side of Warrington (*J. Coll.*). *D.L.*

***Calamia lutosa*, Hb.** Local but abundant where it does occur. *E.L.*

**Lanc.**—Crosby (G. A. Harker); Lytham (*J.B.H.*); Manchester dist. c. (*J.C.*); *E.L.* Warrington, 1906 (*E. Petrie*); 1908, c. (*C.F.J.*); Ainsdale (*W.A.T.*).

**Ches.**—Bidston Marsh, plentiful (*C.S.G.*); Wallasey (*S.J.C.*, *F.N.P.*); throughout Wirral (*J.F.B.*); *E.L.* Additional records in *D.L.* are:—Burton, Ness and Puddington (*W.L.*); Chester at e. l. specially in 1898 (Dobie); 1819, one at e. l. (*S.G.S.*).

**CŒNOBIA, Haw.**

***Cœnobia rufa*, Haw.** A local and scarce species.

**Ches.**—Ledsham and Little Neston (*J.F.B.*); *E.L.* Ince Marshes, s. (*N.*); Chester, one at e. l. 1898 (Dobie); *D.L.* 1919, one at e. l. (*S.G.S.*).

**TAPINOSTOLA, Ld.**

***Tapinostola fulva*, Hb.** General and common in marshy places, we have records from all sections of the two counties.

**Variation.**—This species varies from white, var. **concolor**, Tutt, through various shades of pink and red to the brick red form which Tutt seems to regard as the type. Tutt in his *British Noctuæ* and their Varieties repeatedly refers to specimens from Warrington.

**NONAGRIA, Och.**

***Nonagria arundinis*, Fb. (*typhae*, Esp.).** Generally found where the reedmace grows, in the stems of which the larva feeds. It is difficult to find a good patch of the food plant without a colony of the moth.

***Nonagria geminipuncta*, Hatch.** This moth was added to the list by Prof. R. Newstead who captured a specimen at Hatchmere, in Delamere Forest, in July, 1919 (*S.G.S.*).

**Fam. APAMEIDÆ, Gn.****GORTYNA, Och.**

***Gortyna ochracea*, Hub.** Seems to be fairly common in Cheshire but we have only two records for Lancashire.

**Lanc.**—Ainsdale, 1908 (*W.A.T.*); N. Lanc., Cockerham Moss, l. c. (*G. Loxham*).

**Ches.**—Birkenhead, becoming scarcer (*W.L.*); Wallasey and Flaybrick, pupæ, c. (*Pr.*); Chester, at l. (*A.*, Dobie); Delamere, l. c. (*H.*); Ashley, n. u. (*Day*); Rostherne (*Tp.*); Ince, l. c. (*N.*); White Hall, nr. Tarporley (*Stk.*); Edge, nr. Malpas, c. as l. and pupa (*F.H.W.D.*); *D.L.* Wallasey, in 1908 (*C.B.W.*); Chester, 1919, at e. l. (*S.G.S.*); Ince, 1919 (*S.G.S.*)

**HYDRŒCIA, Gn.**

***Hydrœcia nictitans*, Bork.** No attempt has been made in the earlier lists to separate this from the three closely allied species which follow; evidence now obtainable, by a study of the genitalia, was not then available, the records given below

have, in almost all cases, been confirmed by Mr. F. N. Pierce who is well known as an authority upon this branch of insect morphology. *Nictitans* is common and generally distributed through our counties.

**Variation.**—Very beautiful forms of this moth varying from var. *pallida*, Tutt, to var. *obscura*, Tutt, are taken on the coast sandhills of both counties; for details of these forms see *Brit. Noct. and their Varieties*, Tutt, Vol. I., p. 58.

*Hydrcacia paludis*, Tutt. Fairly common on the coast sandhills along with the preceding species.

**Lanc.**—Crosby sandhills, 1906 (W.M.); St. Annes, c. in 1913 (T.B.); 1914 (B.S.W.).

**Ches.**—Wallasey (Bell).

**Variation.**—Mr. B. S. Williams records a series of 18 specimens from St. Annes shewing complete gradation of colour from pale ochreous through red to fuscous-grey, and with white to orange stigmata (*Proc. S. Lond. Ent. & Nat. Hist. Soc.*, 10 Feb., 1916).

*Hydrcacia lucens*, Fr. This species seems to occur most freely on the moss-lands where in some seasons it is abundant; we have no records yet from Cheshire.

**Lanc.**—Rixton Moss, very fine forms (Mountford); Simonswood Moss (J. Cot.); 1917 (W.M.).

**Variation.**—Rixton Moss appears to be the headquarters for varieties of this species, at any rate in Lancashire, a considerable proportion of the forms referred to by Tutt in his " *Brit. Noct. and their Varieties* " came from there, and we have seen many fine series at the meetings of the L. & C. Entom. Soc. from the same locality.

*Hydrcacia crinanensis*, Burrows & Pierce. Not much is yet known of the distribution of this moth in our counties; collectors living in E. Lanc. would do well to make special efforts to extend our knowledge.

**Lanc.**—A female captured at Bolton in 1897 by the late J. E. R. Allen was the first record for an English locality; Pendle, nr. Burnley, f. c. in 1917 (W.G.C.).

**Hydrcacia petasitis**, Dbl. This species seems to be strictly confined to the neighbourhood of its foodplant, the butter burr, it should be looked for wherever that plant is abundant.

**Lanc.**—Bolton (J.B.H., W.J.); Preston and Ribchester (J.B.H.); Staleybridge, c. in 1870 (J.C.M.); E.L. Nr. Warrington, every year (J. Coll.); nr. Hest Bank and Carlisle Bridge, N. Lanc. (C.H.F.); Bolton dist., recorded by A.R. in 1917.

**Ches.**—Stockport, every year (B.H.C., C.F.J.); Chester at e. l. (S.G.S.). Other localities given in Day's List are:—seven l. and three pupæ dug at Weaverham in 1850 (N. Cook); Ashley (Tp.); nr. Walton (J. Coll.); Chester, one, in 1900, at e. l. (Dobie).

*Hydrcacia micacea*, Esp. Common throughout both counties.

#### AXYLIA, *Hb.*

*Axylia putris*, L. Pretty generally distributed but not common.

**Lanc.**—Simonswood, 1900 and 1901 (J. Cot.); Crosby, 1906 (L.W.G.); Hightown, 1908 (L.W.G.); Ainsdale, 1908 (W.A.T.).

**Ches.**—Ince Marshes, s. (N.); Oxton and Bebington (Sh.); Wallasey (Pr.); Chester, c. at e. l.; Vicars Cross (P.C.); Delamere, c. (H.); Daresbury (J. Coll.); White Hall, nr. Tarporley (Stk.); Dunham, c. in 1889 (R. Tait); D.L. Wallasey 1907 and 1908, c. (C.B.W.); Carrington, a few most years (Tait); Brooklands 1909, c. (G. B Storey); Chester, 1901 (S.G.S.); Delamere, 1919 (S.G.S.).

#### XYLOPHASIA, *St.*

*Xylophasia rurea*, Fb. A common moth in all sections of our counties.

**Variation.**—A beautiful range of varieties may be obtained in almost every locality, from pale ochreous ground-colour to deep chocolate red.

*Xylophasia lithoxylia*, Fb. Common throughout both Lanc. and Ches.

**Xylophasia sublustris, Esp.** Scarce in our counties.

**Lanc.**—Carnforth (J.B.H.); Hale (C.S.G.); *E.L.* Lancaster and nr. Halton, unc. (C.H.F.).

**West.**—Witherslack, unc. (C.H.F.); 1904, few (R.E.J.).

**Xylophasia monoglypha, Hufn.** Abundant everywhere.

**Variation.**—Vars. *obscura*, Tutt, *brunnea*, Tutt, *infuscata*, White, and *aethiops*, Stdgr., are all taken in our area, but, of course, extreme forms are rare.

**Xylophasia hepatica, L.**

**Lanc.**—Preston, not rare (J.B.H.); Hale and Croxteth (C.S.G.); *E.L.* Grange (J. Cot.).

**Ches.**—Cotteril Clough, nr. Ringway (J.C.); nr. Puddington (J.F.B.) *E.L.* Ledsham (Sh.); Chester, at l. and sugar, o. (A.); Ince Marshes, s. (N.); Little Budworth (N.); Hale (Tp.); Delamere, f. c. in 1898 and 1900 (H.).

**Xylophasia scolopacina, Esp.** Scarce, only taken in single specimens.

**Lanc.**—Agecroft, nr. Manchester (J.C.); Brockholes Wood, nr. Preston (J.B.H.); *E.L.*

**Ches.**—Chester, at e. l., r. (A.); Edge, nr. Malpas, one at sugar (F.H.W.D.); *D.L.* Stockport, two in different years (C.F.J.).

## DIPTERYGIA, St.

**Dipterygia scabriuscula, L.** Occasional only.

**Lanc.**—Mr. J. B. Hodgkinson reports having seen several which had been taken nr. Manchester. *E.L.*

**Ches.**—Knutsford (J.C.); Alderley, c. in 1879 (H. H. C.); *E.L.* Rudheath, 1901 (Day); White Hall, nr. Tarporley (Stk.); Little Budworth (N.); Congleton (Stb.); *D.L.* Delamere Forest, usually to be taken by sugaring, but not in any numbers; Carrington, one in 1901 (Tait); Cheadle Hulme, one in 1893 (H.H.C.).

## LAPHYGMa, Gn.

**Laphygma exigua, Hb.** Mr. G. A. Harker captured an example of this rare species at light at Crosby, on Sept. 16th, 1884. Mr. Hodgkinson mentions having once seen a specimen at Preston. *E.L.* New records are:—

**Lanc.**—St. Annes, two flying in daytime, 1889, and one in a later year (T. Baxter).

**Ches.**—Chester, at e. l. 1900 (Dobie), 1903 (A.), 1908 (A.).

## NEURIA, Gn.

**Neuria reticulata, Vill. (saponaria, Bork.).** Scarce with us.

**Lanc.**—Fleetwood, one in 1892 (Stott); Crosby (B.S.), also in 1907 (L.W.G.); Ainsdale, two at l. in 1912 (W.A.T.).

**Ches.**—Recorded as scarce from Denhall, and from Delamere Forest by F. O. Walker. *E.L.* Chester, at e. l. one in 1899 and one in 1900 (Dobie); White Hall, nr. Tarporley, one in 1901 (Stk.). *D.L.*

## NEURONIA, Hb.

**Neuronia popularis, Fb.** A fairly common species recorded throughout the district.

## CHARÆAS, St.

**Charæas graminis, L.** A very abundant species throughout, sometimes very destructive to pastures in the moorland districts, as in 1881 and again in 1917 and 1918, when Mr. A. E. Wright reported that the larvæ could be swept up in thousands and that grass fields were eaten bare in the Burnley and neighbouring districts.

## CERIGO, St.

**Cerigo matura, Hufn.** Ellis says common and generally distributed, but there are few recent records and none speaks of it as common.

**Lanc.**—Formby, 1897 (J. Cot.); Winster, 1899 (J. Cot.); Simonswood, 1901 (J. Cot.); Ainsdale, 1908 (W.A.T.); St. Annes, 1914 (B.S.W.).

**Ches.**—Wirral (*W.L.*); Oxton and Noctorum (*Sh.*); Newton-cum-Larton (*Day*); Wallasey, c. at sugar; Chester. *D.L.* Wallasey, 1906-7-8 (*C.B.W.*); Brooklands, once (*G.S.*).

### LUPERINA, *Bdv.*

**Luperina gueneei**, *Dbl.* Previous to 1909 only two Lancashire examples of this species were known, both were taken at St. Annes in 1889 and 1891 respectively, by the late T. Baxter. These specimens were then considered to be a variety either of *L. testacea* or of *L. nickerlii*. In 1909 Mr. Baxter and Mr. A. Yates found about twelve specimens at St. Annes, while in 1910 and following years large numbers were obtained. During recent times the habitat at St. Annes has been much interfered with and the insect is rare in that locality now. For further information regarding this moth see Entom., XLII., p. 289, and Ent. Rec., XXII., Nos. 3-8. Some authorities still hold that *gueneei* is not entitled to specific rank, and consider it to be a var. of *nickerlii*, but I believe most British lepidopterists regard it as a good species.

We have one other record: a single specimen from Southport, sent to me for identification by Mr. W. G. Glutton some years ago. It is probable that the species would be found in other localities on the sandhills if worked for. The moth was only found among the smaller kind of "star grass" in places where it grew plentifully, not among the common marram or "star grass." Mr. Baxter considered the larvæ fed in the crown of the plant and in the underground stems.

**Luperina testacea**, *Hb.* A very common and well distributed moth.

**Variation.**—This species varies from pale greyish white through ashy grey to blackish grey and some are quite black; in some the markings are very indistinct and in others strong. The late Rev. R. Freeman records a black specimen from Simonswood Moss in 1899. Tutt, Brit. Noct. and their Varieties, Vol. I., 137, mentions having received the following from Lancashire:—var. *cinerea*, Tutt, var. *nigrescens*, Tutt.

**Luperina cespitis**, *Fb.* Found most frequently on the coast sandhills.

**Lanc.**—Carnforth and Preston (*J.B.H.*); Crosby, c. to all; Withington (*J.C.*) *E.L.* Knowsley Park (*J. Cot.*); Winster, 1889 (*J. Cot.*); Simonswood, 1889 (*J. Cot.*); Ainsdale, 1908 (*W.A.T.*).

**Ches.**—Wallasey, c. to all; Bidston Hill (*Pr.*); Delamere and Knutsford (*Day*); Chester, few at e. l. (*A.*, Dobie); Edge, nr. Malpas, f. c. at l. (*F.H.W.D.*). *D.L.* Carrington (*R.T.*); Delamere (*B.H.C.*).

### MAMESTRA, *Och.*

**Mamestra abjecta**, *Hb.* One of our scarce species.

**Lanc.**—Preston, sc. (*J.B.H.*); two at Claughton (*J.F.B.*). *E.L.* Warrington, one (*J. Coll.*); St. Annes, c. at sugar and ragwort in 1890, not seen since (*T.B.*); one in 1913 (*A.E.W.*).

**Ches.**—Claughton, Ness and Puddington, sc. (*W.L.*); New Brighton, two at sugar 1852 (G. A. Almond, Zool., Vol. II., p. 3776). *D.L.* Warrington, Cheshire side, opposite Fiddler's Ferry, in 1902 (*J. Coll.*).

**Mamestra sordida**, *Bork.* (*anceps*, *Hb.*) Also a scarce moth.

**Lanc.**—Preston, n. c. (*J.B.H.*); Simonswood, 1900 (*J. Cot.*).

**Ches.**—Wirral (*W.L.*); Wallasey, n. v. c. (*Pr.*); Bidston (*Sh.*); Chester, at e. l. (*A.*, Dobie); Holford Moss, n. u. (*Day*); *D.L.* Wallasey, one in 1907 (*C. B. W.*); Delamere, 1905 (*R.T.*).

**Mamestra albicolon**, *Hb.* A common species on the coast sandhills of both counties, not recorded inland.

**Mamestra furva**, *Hb.* Another coast species, but occasionally found inland, not mentioned in *E.L.*

**Lanc.**—Nr. Clougha, local (*C.H.F.*); Silverdale, Jenny Brown's Point (*W.P.S.*).

**Ches.**—Chester, one at sugar (*A.*); Ince Marshes, one (*N.*); Stockport, 1844 (R. S. Edelston in Zool., Vol. II., p. 734), *D.L.*

**West.**—Witherslack, f.c. (*G. Loxham*).

**Mamestra brassicae**, *L.* A nuisance in gardens everywhere.

**Variation.**—The only distinct varieties I have seen are two specimens of var. *ochracea*, Tutt, one being in the coll. of

Mr. W. Buckley and bred from an Urmston larva, the other in my own series and bred from a Wavertree larva; generally speaking our specimens run somewhat darker than in the South.

**Mamestra persicariae**, L. Not so abundant as the last but fairly common and well distributed.

#### APAMEA, Och.

**Apamea basilinea**, Fb. Another common and widely distributed moth, reported from all sections of our counties.

**Apamea connexa**, Bork. A single specimen, taken at light at Wallasey, was recorded by Mr. Gregson. D.L. There are no new records.

**Apamea gemina**, Hb. Common and general in all parts of our counties. The var. *remissa*, Tr., was recorded from Delamere in 1919 (S.G.S.).

**Apamea unanimis**, Tr. A fairly common species but somewhat local in its occurrence.

**Lanc.**—Chat Moss and Withington (J.C.); Hale and Croxteth (C.S.G.). E.L. Lostock, 1890, n. unc. Stott; nr. St. Helens, 1898-99 (J. Cot.); Simonswood, 1901 (J. Cot.); Knowsley Park, 1905 (J. Cot.); Wigan, 1920 (Hop.); Burnley dist., f.c. (A.E.W.); Oldham (Windle).

**Ches.**—Chester (A.O.W.); Prenton (C.S.G.); Wallasey, Rockferry and Puddington (J.F.B.); Alderley, occ. (H.H.C.); E.L. Chester, 1901, at e.l. (S.G.S.); Dunham, 1903 (R.T.); Brooklands, f.c. (G.B.); 1909 (G.S.); Stockport, a few (C.F.J.).

**Apamea leucostigma**, Hb. Scarce.

**Lanc.**—Huyton (S.J.C.); Morecambe, ab. (J.B.H.); E.L. Prescot, one var. *fibrosa* (Rev. R. Freeman); Eccleston Mere, nr. Prescot, one in 1908 (W.M.).

**Ches.**—Dunham Park (S.J.C.); Wallasey, occ. (W.J.); D.L. White Hall, nr. Tarporley, one (Stk.).

**Apamea didyma**, Esp. Abundant throughout and very variable.

#### MIANA, St.

**Miana strigilis**, Clerck. Abundant throughout, the black form, var. *aethiops* commoner, in some districts, than the type.

**Miana fasciuncula**, Haw. Common, specially on the coast.

**Miana literosa**, Haw. Common on the sand-hills, scarce inland.

**Minna bicoloria**, Vill. Abundant some years on the coast as at Wallasey, scarce inland.

**Miana arcuosa**, Haw. Common but local.

**Lanc.**—Altcar and Halewood, nr. Liverpool (C.S.G.); Bolton (W.J.); Pendleton, c. (J.C.); Preston (J.B.H.); E.L. Bolton dist., f.c. (Stott); Burnley dist., c. (A.E.W.); Oldham (Windle); Simonswood, 1900 (J. Cot.); Knowsley Park, 1905 (J. Cot.); Eccleston Mere, nr. Prescot, 1905 (F.T.); nr. Warrington, c. (Robinson); Swinton, 1913, f.c. (Stott); Wigan, 1919, c. (Hop.).

**Ches.**—Bowdon, Bidston Marsh and Puddington (E.L.); Bidston (Pr.); Bebington (Sh.); Chester, n. u. at e. l. (Dobie); Knutsford Moor, c. (Day); Rostherne, sc. (Tp.); Macclesfield (R. South); D.L. Wallasey, 1908 (C.B.W.); Brooklands, one in 1910 (G.S.).

#### PHOTHEDES, Ld.

**Phothedes captiuncula**, Tr. (*expolita*, Sta.). Confined to North Lancashire. In the Ellis List Mr. Hodgkinson remarks that it should be found to occur on Hamps Fell, Grange, and this has since turned out to be the case.

**Lanc.**—The first Lancashire specimens were taken at Silverdale on the occasion of the Lanc. and Ches. Ent. Soc. field meeting, on June 26th, 1909, when all those present met with the species. Hamps Fell, Grange, 1917-18 (A.E.W.).

**West.**—Arnside Knott, 1906, 1919 and 1920, f. c. (W.M.); Witherslack, sparingly to all collectors.

#### CELÆNA, St.

**Celæna haworthii**, Curt. Appears to be confined to the moors and mosses, abundant on the moorlands in E. Lancashire.

**Lanc.**—Bolton (W.J.); Chat Moss (J.C.); moors above Chorley, ab. (J.B.H.); *E.L.* Simonswood Moss, c. (W.M.); Bolton, on moors, ab. (Stott); Burnley, c. (A.E.W.); nr. Clougha, n.e. (C.H.F.); Rixton Moss (C.F.J.).

**Ches.**—Carrington Moss, now sc. (Day); Delamere Forest (N.); Lindow Common (J.C.); Staley Brushes (J.C.). *E.L.* Wybunbury Bog (Th.); Macclesfield, Danes Moss (Th., R.S.). *D.L.* Delamere Forest, c. in 1908 (Dr. Edwards).

**West.**—Meathop Moss, n. c. (C.H.F.).

*Fam. CARADRINIDÆ, Gn.*

#### GRAMMESIA, St.

**Grammesia trigrammica, Hufn.** Not a common moth and local.

**Lanc.**—Crosby (G.A.H.); Huyton (S.J.C.); Preston, n. rare (J.B.H.); Prestwich and Silverdale (J.C.M.); *E.L.* Knowsley Park, 1905 (J. Cot.); Winster, and var. *bilinea*, 1897 (J. Cot.); Simonswood, 1899 (J. Cot.); Crosby, 1906 (L.W.G.); St. Annes, c. (A.E.W.).

**Ches.**—Chester dist. (A.O.W.); Wallasey, c. at sugar, *E.L.* Delamere Forest (A.H.); few in 1919 (S.G.S.); Wallasey, c. in 1907-8-9 (C.B.W.); 1915 (J.W.G.).

**West.**—Meathop, lar. (C.H.F.).

**Variation.**—Dr. Cotton records var. *bilinea* from Winster and Mr. C. B. Williams notes one var. *semi-fuscans* from Wallasey. No doubt the dark forms occur wherever the type occurs in any numbers.

#### STILBIA, St.

**Stilbia anomala, Haw.** Very local and scarce.

**Lanc.**—Dutton, nr. Ribchester (J.B.H.), Silverdale and Longridge (J.B.H.); *E.L.*

**Ches.**—Staley Brushes, one specimen taken by Thomas Hague (J.C.), *E.L.* White Hall, nr. Tarporley, one (Stk.). *D.L.*

**West.**—Witherslack, one in 1892 (A.).

#### CARADRINA, Och.

**Caradrina morpheus, Hufn.** Generally distributed over both counties but not common.

**Caradrina alsines, Brahm.** Not common.

**Lanc.**—Preston dist., n. c. (J.B.H.). *E.L.* Eccles, 1894 (W.P.S.); Ainsdale, 1908 (W.A.T.).

**Ches.**—Wallasey and Bromborough, sc. (A.O.W.); Wallasey, n. c. (Pr., M.); Chester, f. c. at e. l. (Dobie); Hale (Tp.); Ashton-on-Mersey (Stb.). *D.L.*

**Caradrina taraxaci, Hb. (*blanda*, Tr.).** Also an uncommon species.

**Lanc.**—Preston (J.B.H.); Pendleton and Withington, unc. (J.C.). *E.L.* St. Annes, 1914 (B. S. Williams).

**Ches.**—Wallasey and The Wirral (*E.L.*). Chester, f. c. at e. l. (Dobie); Ince Marshes (N.); Delamere, f. c. 1899 (H.); White Hall, nr. Tarporley (Stk.); *D.L.* Delamere, 1901 (S.G.S.); Wallasey, 1907 (C.B.W.).

**Caradrina quadripunctata, Fb. (*cubicularis*, Bork.).** Occurs everywhere in our district; for a remarkable assemblage of this moth to a greenhouse in Manchester see Lanc. & Ches. Nat., Vol. X., p. 183.

#### RUSINA, St.

**Rusina tenebrosa, Hb.** A widely distributed moth and common in suitable localities.

**Lanc.**—Carnforth and Longridge, n. c.; Crosby; Manchester dist., Birch Wood, Woolton (*E.L.*); Simonswood Moss, 1898 (J. Cot.), 1906 (W.M.); Winster, 1900 (J. Cot.); Halsnead, 1905 (J. Cot.); Eccles, 1892 (W.P.S.); Ainsdale 1908 (W.A.T.); St. Annes, 1908, c. (A.E.W.); Lancaster dist., f. c. (C.H.F.); Burnley dist., sc. (A.E.W.).

**Ches.**—Tranmere, Wallasey and Wirral (*E.L.*). Bidston, Ness and Burton (W.L.); Chester at e. l. (Dobie); White Hall, nr. Tarporley (Stk.); Holford Moss, c. (Day); Pettypool Park (J. Coll.); Bowdon, sc. (Tp.); Dunham (R.T.); *D.L.*

Carrington, most years (R.T.); Rudheath, 1907 (A.W.B.); common at Wallasey and Delamere, recorded by all who collect there.

**West.**—Meathop Moss (C.H.F.).

Fam. NOCTUIDÆ, Gn.

AGROTIS, Och.

**Agrotis vestigialis**, Hufn. (*valligera*, Hb.). Abundant on the coast sand-hills of both counties; the only inland record is Delamere, in 1900 and 1919 (S.G.S.); like most of this genus *vestigialis* is a very variable species and probably all the named forms occur in our counties.

**Agrotis puta**, Hb. Infrequent.

**Lanc.**—Knowsley Park, 1901 (F. C. Thompson); Heysham, n. c. (C.H.F.).

**Ches.**—One near Wallasey recorded by Mr. Brockholes (E.L.). Storeton Wood (W.L.); White Hall, nr Tarporley (Stk.); D.L. Chester, at e. l. one in 1919, also in 1920 (S.G.S.).

**Agrotis suffusa**, Hb. Widely distributed and some years common, specially on the coast.

**Agrotis saucia**, Hb. Recorded from all sections of both counties, but generally referred to as rare or occasional.

**Agrotis segetum**, Schiff. Common everywhere and very variable, from light mottled to black. I have the black form var. *nigricornis*, Vill. from Simonswood Moss where it is not uncommon.

**Agrotis lunigera**, St. Very scarce.

**Lanc.**—Crosby sand-hills, at ragwort (A.W.H.).

**Ches.**—Chester, one at e. l. (Dobie); D.L. Wallasey, in 1917 (J.W.G.).

**Agrotis exclamationis**, L. Abundant throughout. Also a very variable species; a quite black form is fairly common on

Simonswood Moss and doubtless in similar localities elsewhere.

**Agrotis corticea**, Hb. Local and uncommon, Wallasey seems to be the best locality.

**Lanc.**—Crosby, n. c. (C.S.G.); Preston, n. c. (J.B.H.); E.L. Winster, 1897 (J. Cot.); Simonswood Moss, 1900 (J. Cot.); Knowsley Park (J. Cot.); Heysham, n. c. (C.H.F.); St. Annes, 1913 (A.E.W.).

**Ches.**—Wallasey, sp. to all who have collected there.

**Agrotis cinerea**, Hb. Recorded from the neighbourhood of Grange, just over the Lancashire border by J.B.H. in the Ellis List. No confirmation of this has been received although the ground in the Grange district appears suitable for the species.

**Agrotis ripæ**, Hb. Very local, of rare occurrence except at St. Annes, where it is taken every season and sometimes in plenty.

**Lanc.**—St. Annes, generally c. (T.B.); Do. 1913, c. (A.E.W.); Lytham, lar. f. c. 1914 (B.S.W.).

**Ches.**—Runcorn (E.L.); Wallasey, three l. 1916 (J.W.G.).

**Variation.**—There is a very extensive range of variation in this species. I have the following named forms from St. Annes:—*desertorum*, Bd., *nebulosa*, Std., *desillii*, Pier., *albicosta*, Tutt, and Tutt mentions var. *grisea*, Tutt, as having been sent him from the Lancashire coast; with the exception of the last these varieties are about equally common at St. Annes.

**Agrotis cursoria**, Bork. Common on the coast sand-hills.

**Lanc.**—c. and very variable (T.B.); Do. 1900 and 1901 (B.H.C., C.F.J.); Do. 1914 (B.S.W.); Ainsdale 1913 (W.A.T.); Formby (A.R.D.); Heysham (C.H.F.).

**Ches.**—Denhall (A.O.W.) E.L. Wallasey, used to be common but not reported since 1905.

**Variation.**—The following forms described by Tutt in his Brit. Noct. and their Vars. ii., p.41, have been sent me from St. Annes:—*saggita*, Hb., *costæ-cærulea*, Tutt, *cærulea*, Tutt,

*ochrea*, Tutt, *obsoleta*, Tutt, *brunnea*, Tutt, and *armena*, Evers., *mixta*, Fab. and *pallida*, Tutt are also mentioned as from the same place, *loc. cit.*, p. 41. There is also an article by R. South (*Entom. XXIII.*, p. 145) on the variation of this species at St. Annes.

**Agrotis nigricans**, L. - Sand-hills and mosses, fairly common.  
*E.L.*

**Lanc.**—Lostock, occ. 1890 (Stott); Simonswood 1899 (J. Cot.); Knowsley Park (*id.*); St. Annes 1900-01 (B.H.C.); 1908 (T.B.); 1914 (B.S.W.); Crosby sand-hills 1905 (J. Cot.); Heysham (C.H.F.); Ainsdale 1913 (W.A.T.); West Derby 1913 (A.W.H.).

**Ches.**—Bowdon, n. c. (J.C.); Denhall (A.O.W.); Wallasey (F.N.P.) *E.L.* Chester, at e. l. (A., Do.); nr. Tarporley (*Stk*); Vicar's Cross, two (P.C.); Bowdon (*Tp.*) *D.L.* Wallasey (R.T.); 1916-17 and 19 (J.W.G.); Stockport one (C.F.J.); Brooklands, f. c. 1909 (G.S.); Altringham, 1909 (A.W.B.); Alvanley, 1917 (Carr); Chester, at e. l. (S.G.S.).

**Variation.**—The late T. Baxter, of St. Annes, reported that the black forms var. *fumosa*, Haw. and var. *fuliginosa*, God., are the only ones that occur there; I have both of these from him.

**Agrotis tritici**, L. Common on all the coast sand-hills and occasionally inland. This moth seems to hold its own all along the coast except that where links are established it is not in such great numbers as formerly.

**Variation.**—There is an article by R. South on the variation of *tritici* at St. Annes in *Entom. XXIII.*, p. 145, and I have received the following from that locality, viz.—vars. *fusca*, Tutt, *valligera*, Haw., *albilinea*, Haw., *nigro-fusca*, Esp., *gyptena*, Gn., and there are other forms of this very variable species in local collections which have not been reported.

**Agrotis aquilina**, W.V. On the sand-hills and mosses, but not so common as the preceding species (*E.L.*).

Tutt refuses to recognise this as a distinct species but Mr. F. N. Pierce has decided by his examination of the genitalia that *aquilina* is distinct; there is no doubt, however, that there are variations of *tritici* which closely resemble *aquilina* but they are much smaller in size.

**Agrotis obelisca**, W.V. Rare, only one new record since 1886.

**Lanc.**—Crosby (C.S.G.) *E.L.* St. Annes, 1903 (A.E.W.).

**Ches.**—Stourton (C.S.G.); Wallasey (N.C.); Heswall (R.W.); *E.L.*

**Agrotis agathina**, Dup. Not often taken as the imago, but sometimes common as in the larval stage.

**Lanc.**—Chat and Rixton Mosses, r. (J.C.); Farrington Moss (J.B.H.); Simonswood Moss (C.S.G.), *E.L.* Winster, 1899 (J. Cot.); Bolton, one in 1890 (Stott).

**Ches.**—Bidston Hill, occ. (W.J., J.C.M.); Wallasey, one in 1854 (Almond). *E.L.* Nr. Tarporley, one (*Stk*); Wilmslow (*Tp.*); Delamere, Abbott's Moss (J. Coll.). *D.L.* Delamere, lar. c. in 1907-8, imago in 1907 and 1910 (W.M.); Rudheath, 1909 (A.W.B.); Bickerton, one in 1907 (G.S.).

**Variation.**—The Delamere insect is the var. *scopariae*, Mill. The darker forms might almost be considered melanic.

**Agrotis strigula**, Thnb. (*porphyrea*, Hb.). Common where heather grows throughout the two counties and the Wither-slack district.

**Agrotis præcox**, L. Common on all the coast sand-hills from St. Annes to Wallasey and confined thereto. One or two inland localities mentioned in *D.L.* are probably accidental.

**Variation.**—I have had the var. *præceps*, Hb. sent to me from St. Annes by the late T. Baxter.

**Agrotis obscura**, Brahm. (*ravida*, Hb.). There is only one record of this species:—Rusholme, nr. Manchester, Lanc., taken by Mr. G. W. Adams. *E.L.*

**Agrotis simulans**, Hufn. (*pyrophila*, Fb.). Scarce, there are no recent records.

**Lanc.**—Lytham, r. (J.B.H.); Old Swan, Liverpool, in 1847 (C.S.G.); *E.L.*

**Ches.**—Bidston (C.S.G.); Wallasey, once (W.J.); *E.L.*

**Agrois lucerneae**, L. Speaking generally this is another scarce moth with us.

**Lanc.**—Turton's Topping, nr. Bolton (J. W. Baldwin, Y.N., L, 387); nr. Grange (J.B.H.); E.L. Burnley, one in 1918 (A.E.W.).

**West.**—Witherslack. Fairly c. on the bare stony slopes of Whitbarrow (A. E. Tonge).

#### NOCTUA, Gn.

**Noctua glareosa**, Esp. Plentiful some years in Delamere Forest; in other districts only occasionally taken.

**Lanc.**—Nr. Bolton; Crosby, one; Longridge; Woolton, nr. Liverpool (E.L.). Lostock, 1892 (Stott); Winster, 1899 (J. Cot.); Lancaster, n. c. (C. H. F.); Ainsdale, c. 1908 (W.A.T.); Silverdale (W.P.S.); Burnley dist. sc. (A.E.W.); Formby, one in 1921 (W.M.).

**Ches.**—Alderley, r.; Dunham Park; Ness, sc.; Staley Brushes; Stourton (E.L.). Nr. Tarporley and Macclesfield (D.L.); Bickerton (G.S.); Delamere Forest, every year; abundant in 1906-7, 1910 and 1920.

**West.**—Witherslack (C.H.F.).

**Variation.**—Usually of the typical form, sometimes rosy tinged; var. *rosea*, Tutt, Delamere, sc. (W.M., S.G.S.).

**Noctua depuncta**, L. Recorded only from Staley Brushes, r. (J.C., in E.L.)

**Noctua augur**, Fb. A very common and widely distributed species.

**Noctua plecta**, L. Also a common and widely distributed moth.

**Noctua c-nigrum**, L. Another abundant species recorded from all parts of the two counties. I have some bred Liverpool specimens which closely approach var. *suffusa*, Tutt.

**Noctua ditrapezium**, Bork. A specimen bred from a larva found at Hightown, Lanc., was exhibited by Mr. H. B. Prince to the Lancashire and Cheshire Entomological Society, Feb., 1922.

**Noctua triangulum**, Hufn. Not common anywhere, but more widely spread in Cheshire; in Lancashire it seems to be rarely taken in the Eastern part of the county and only occasionally in the West.

**Lanc.**—Longridge; nr. Lytham; Middleton; Pendleton; Prestwich; Old Swan, Liverpool (E.L.); Winster, 1899 (J.Cot.); Knowsley (J.Cot.); Silverdale (W.P.S.); Formby, 1907 (W.M.); Grange (A.E.W.).

**Ches.**—Chester; Staley Brushes; Wallasey; Wirral, sc. (E.L.); Chester; nr. Tarporley; Delamere; Knutsford; Dunham; Hale (D.L.); Wallasey, f. c. 1907-8-9 (C.B.W.); Baguley, 1910 (G.B.); Brooklands, n. c. (G.S.); Alderley Edge, 1891 (W.P.S.); Birkenhead (W.P.S.); Chester, one 1920 (S.G.S.); Delamere, recorded by all who collect there.

**Noctua rhomboidea**, Esp. (*triangulum*, Bork.). The single record in E.L. appears to be somewhat confused; apparently *rhomboidea*, Tr. is meant, but, in the absence of confirmation, I think it should be deleted from the list.

**Noctua brunnea**, Fb. Common and general throughout.

**Variation.**—Mr. A. E. Wright records var. *lucifera*, Esp., from Burnley and I think this is the prevailing form with us. I have var. *rufa*, Tutt, from Delamere and also a few examples referable to var. *nigricans*, Hofmeyer.

**Noctua festiva**, Hb. Common and general throughout.

**Variation.**—Our specimens are referable to the pale ochreous group:—vars. *ignicola*, H-S, *ochrea-virgata*, Tutt, *primulæ*, Esp., and the red ochreous group comprising vars. *rufo-virgata*, Tutt, *conflua*, H-S, and *mendica*, Fab. A beautiful variety, now in my own collection, was taken by Dr. John Cotton on Simonswood Moss in 1905. In this the central area and a basal spot are pale ochreous, the broad marginal area and a sub-basal fascia being purplish brown.

**Noctu dahlii**, Hb. At Delamere this occurs regularly and is sometimes common, otherwise of occasional occurrence only.

**Lanc.**—Windermere (J.B.H.); Woolton, nr. Liverpool (C.S.G.), E.L. Winster, 1899 (J. Cot.); Lostock, 1888 (Stott); 1921-22, Bigland Fell, c. (R.L.).

**Ches.**—Alderley, r. (H.H.C.); Hargreave Hall and Hooton (C.S.G.); Staley Brushes, n. c. (J.C.), E.L. Bowdon, r. (Tp.); nr. Tarporley (Stk), D.L. Delamere, c. in 1894 (B.H.C.); ditto, 1895 (R.T.); has since occurred to all who collect there.

**Variation.**—I have a specimen of var. *rufa*, Tutt, taken by myself at Delamere.

**Noctua rubi**, View. Common and generally distributed; specially abundant on the coast.

**Noctua umbrosa**, Hb. I have records shewing it to be found in all parts of Lancashire, commonly on the coast; in Cheshire its headquarters seem to be at Wallasey. Other localities in Cheshire are:—Bowdon, n. c. (J. C. in E.L.); Oxton (W.G., Sh.); Chester dist., c.; Edge, nr. Malpas, c.; Delamere (N.), D.L. Blacon, nr. Chester, 1919 (S.G.S.); Delamere, 1921 (S.G.S.).

**Noctua baia**, Fb. Common in all sections of the two counties and at Witherslack.

**Noctua castanea**, Esp. Common only at Delamere.

**Lanc.**—Dutton, nr. Ribchester (J.B.H.); nr. Hale, two (C.S.G.); Pendleton and Chat Moss, n.c. (J.C.), E.L. Rixton Moss, 1905 (J. Coll.).

**Ches.**—Rudheath, f. c. 1900 (D.L.); Bickerton, three at heather bloom (G.S.); Delamere, c. most years specially as larvæ.

**Variation.**—Contrary to Mr. G. O. Day's experience the red type form prevails with us; the var. *neglecta*, Hb. being rare. I have bred large numbers from Delamere larvæ but all have been the red type. Records of var. *neglecta* are as follows:—Rixton Moss (J. Coll.); Delamere, 1910, one (H.R.S.); ditto, some inclining to var. *neglecta* (A.E.W.).

**Noctua xanthographa**, Fb. Abundant throughout.

**Variation.**—Of this very variable species only the following have been noted:—var. *cohoesa*, H-S. and var. *rufa*, Tutt. St. Annes, 1914 (B.S.W.); var. *nigra*, Tutt and var. *obscura*, Tutt, Formby, 1910 (W.M.).

### TRIPHÆNA, *Och.*

**Triphæna ianthina**, Esp. Since publication of the Ellis List in 1886 and Day's List in 1903 many records have been received shewing this moth to be widely distributed; it is however of more frequent occurrence in Cheshire than in Lancashire.

**Triphæna fimbria**, L. Also generally distributed and like the last more abundant in Cheshire.

**Variation.**—Very variable from pale ochreous to deep mahogany brown. I have bred all the named forms from Delamere, viz.:—vars. *rufa*, Tutt, *brunnea*, Tutt, *virescens*, Tutt and *solani*, Fb.

**Triphæna interjecta**, Hb. Local and infrequent.

**Lanc.**—Wyre dist. nr. Fleetwood (J.B.H.) (E.L.) Hest Bank and Lancaster and nr. Heysham, occ. (C.H.F.); Fleetwood, three 1887 (T.B.); Cleveleys and Rossall Beach, 1918 (A.E.W.).

**Ches.**—Chester dist. (A.O.W.); New Brighton (C.S.G.); Parkgate (W.G.); Wallasey (J.F.B.) E.L. Delamere Forest, l.r. (Day); Wallasey, 1900 (R.T.); Chester (N.); ditto, at e. l. (Do.); Bowdon (Tp.) D.L. Saughall, nr. Chester, one, 1920 (S.G.S.).

**Triphæna comes**, Hb. An abundant and generally distributed species, specially common in the larval stage. More often recorded from Lancashire than from Cheshire.

**Variation.**—The ochreous-grey and grey forms predominate with us and the various shades of ground colour have received names for which see Tutt, Brit. Noct. and their Varieties. Of the more distinct varieties Mr. S. G. Smith records var. *connuba*, Hb. from Chester, 1918.

**Triphæna pronuba**, L. Common everywhere.

**Variation.**—Endless shades of ochreous, grey, red and brown forms occur, both with and without the collar; for names of these the above mentioned work may be consulted. An interesting aberration having white hind-wings was bred from a wild pupa dug at Tarvin, Ches., by Mr. S. G. Smith in 1921.

## Fam. AMPHIPYRIDÆ, Gn.

## AMPHIPYRA, Och.

**Amphipyra pyramidea**, L. Scarce. Only taken in Cheshire.

**Ches.**—Puddington, 1870 (J.F.B.); Dunham Park, r. (J.C.); Eastham Wood (W.J.) E.L. Chester (A., N.); ditto 1898 (Dc.); Vicar's Cross, one (P.C.); Edge, nr. Malpas, f. c. (F.H.W.D.) D.L. Chester, five in 1918 (S.G.S.); Balderton, nr. Chester, 1921 (Nagle).

**Amphipyra tragopogonis**, L. Found commonly throughout.

## MANIA, Tr.

**Mania typica**, L. Common everywhere. Our insect is generally darker than is usual in the South and the lines are brighter.

**Mania maura**, L. Apparently less common than formerly, the following are all the records to hand since the publication of the Ellis List in 1886.

**Lanc.**—Winster (J. Cot.); Knowsley Park and Simonswood Moss, 1901 (*id.*); Fallowfield, Manchester, 1901 (Petrie); Lancaster dist. n. c. (C.H.F.); Swinton, n. c. 1913 (Stott); Burnley dist., r. (A.E.W.).

**Ches.**—Carrington, occ. (R.T.); Sale, c. in 1908 (R.T.); Stockport, v. c. (C.F.J.); Brocklands, occ. (G.S.); Chester, few 1919-20-21 (S.G.S.); Altringham (A.W.B.).

## Fam. ORTHOSIIDÆ, Gn.

## PANOLIS, Hb.

**Panolis piniperda**, Panz. Common wherever there are pine plantations specially in the neighbourhood of the mosses.

**Variation.**—At Delamere the red typical forms prevail var. *griseo-variegata*, Gcze, being found occasionally; at Simonswood Moss, on the other hand, the variety predominates.

## PACHNOBIA, Gn.

**Pachnobia leucographa**, Hb. Scarce and confined to N. Lancashire.

**Lanc.**—Formerly c. at Preston, now sc. (J.B.H.) E.L. Lakeside, 1909 (C.F.J.); Grange, 1920 and 1921, sev. (R.C.L.).

**West.**—Witherslack Hall Wood, f. c. (R.C.L.).

**Pachnobia rubricosa**, Fb. Generally distributed throughout but not a common moth.

## TÆNIOCAMPA, Gn.

**Tæniocampa gothica**, L. Common and general.

**Variation.**—A very variable species specially as regards the ground colour which varies from grey to red-brown. Var. *gothicina*, H-S. sc. Lancaster dist. (C.H.F.); var. *variegata*, Tutt, Simonswood Moss (W.M.); var. *rufescens*, Tutt, St. Annes and Simonswood Moss (W.M.); var. *brunnea*, Tutt, St. Annes (T.B.); Warrington (J. Coll.); I have also taken the aberration having the gothic mark divided into two spots at Simonswood Moss and Mr. A. E. Wright records the same from Burnley.

**Tæniocampa incerta**, Hfn. An abundant and general species.

**Variation.**—This is perhaps the most variable moth of the genus. The following have been noted:—var. *pallida*, Lampa, Burnley (A.E.W.); *nebulosus*, Haw. Warrington (J. Coll.); *trigutta*, Esp. Simonswood Moss (W.M.); *angustus*, Haw. Warrington (Tutt); *rufa*, Tutt, Warrington (J. Coll.); *cærulea*, Tutt, Simonswood Moss (W.M.); *atra*, Tutt, and *contacta*, Tutt, Simonswood Moss (W.M.).

**Tæniocampa opima**, Hb. Very local, its headquarters are at St. Annes and Wallasey. The restriction of its habitat makes it progressively less common.

**Lanc.**—St. Annes, used to be abundant, now almost gone (T.B. in 1915); a few 1918 (A.E.W.).

**Ches.**—Wallasey, still locally c. on the sand-hills (W.M.); Netherton, one 1917 (Carr.).

**Variation.**—The following named forms occur:—*firma*, Hb. St. Annes (T.B.); *grisea*, Tutt, St. Annes and Wallasey; *intermedia*, Tutt, St. Annes (T.B.); Wallasey (W.M.); *brunnea*, Tutt, Wallasey (W.M.); *unicolour*, Tutt, Wallasey (W.M.); *virgata-grisea*, Tutt, Wallasey (W.M.).

**Tæniocampa populeti**, Fb. Only met with occasionally.

**Lanc.**—Bolton (W.J.); Hale and Lydiate (C.S.G.); Chat-

Moss and Withington (J.C.); Longridge and Preston (J.B.H.); Prestwich (J.C.M.) *E.L.* Lancaster dist. n. c. (C.H.F.).

**Ches.**—Generally dist. through Wirral but sc. (J.F.B.); Eastham (C.S.G.); Marple (J.C.) *E.L.* Wallasey r. (Pr.); Chester, occ. at e. l. (A.); one, 1900 (Do.); nr. Knutsford, locally c. (Day); Mobberley (Tp.); *D.L.* Wallasey, one (A.H.); Delamere, several 1912 (S.P.); ditto, 1920-21 (S.G.S.).

**Tæniocampa stabilis**, View. Abundant throughout.

**Variation.**—Burnley, pale straw to reddish brown (A.E.W.); var. *pallida*, Tutt, is recorded from Warrington.

**Tæniocampa gracilis**, Fb. Generally distributed; common occasionally on the Lancashire sand-hills, not common at Wallasey.

**Variation.**—The vars. *pallida*, St., *sparsus*, Haw. and *rosea*, Tutt, are recorded from St. Annes (T.B.); and *sparsus* also from Wallasey (Tutt).

**Tæniocampa miniosa**, Fb. Rarely taken.

**Lanc.**—Lakeside, 1909 (C.F.J., B.H.C.); Burnley, one (A.E.W.); Ulverston, one (A.E.W.); Grange, f. c. 1921 (R.C.L.).

**Ches.**—Delamere Forest, r. (J.C. in *E.L.*).

**West.**—Arnside, l. c. 1921 (W.M.); 1922 (F. L.); Witherslack, c. 1920 (R.C.L.).

**Variation.**—All the specimens I have seen tend towards var. *rubicosa*, Esp.

**Tæniocampa munda**, Esp. Local and not often taken.

**Lanc.**—Hale and Croxteth, occ. (C.S.G.); Preston (J.B.H.); *E.L.* Silverdale (W.P.S.); Burnley, r. (W.G.C.); Lakeside, 1909 (R.T.).

**Ches.**—Bromborough and Puddington (J.F.B.); Dunham Park and Marple (J.C.); Eastham Wood (J.F.B.); Hooton (C.S.G.) *E.L.* Chester (N.); nr. Tarporley, 1902 (Stk.); Edge, nr. Malpas, r. (F.H.W.D.); Delamere, occ (Day); two,

1900 (A.H.); Hale (Tp.) *D.L.* Delamere, 1912 (S.P.); few, 1917-18 (Carr); ditto 1919; c. in 1920-21 (S.G.S.).

**West.**—Witherslack, 1915 (A.E.W.); ditto, 1922 (C.P.R.).

**Tæniocampa pulverulenta**, Esp. (*cruda*, Tr.). Abundant throughout.

#### ORTHOSSIA, *Och.*

**Orthosia suspecta**, Hb. Some years common on the mosses.

**Lanc.**—Barton Moss (J.C.); Middleton. *E.L.* Simonswood Moss and Knowsley Park, 1897; v. c. 1899 (J. Cot.); Winster, 1899 (J. Cot.); nr. Clougha (C.H.F.); Simonswood Moss, c. 1906 (W.M.); Burnley, 1917 (W.G.C.).

**Ches.**—Staley Brushes (J.C., etc.); between Stourton and Hargreave Hall (C.S.G.) *E.L.* Rudheath and Holford Moss, c. (Day).

**Ches.**—Stockport, occ. (C.F.J.); Macclesfield (R. South); Delamere (Day, etc.) *D.L.* Taken occ. by all who collect at Delamere. Carrington, occ. (R.T.).

**West.**—Witherslack (F.L.).

**Variation.**—Simonswood, 1906, var. *rufa*, Tutt (W.M.).

**Orthosia epsilon**, Bork. Not often recorded but probably common among willows.

**Lanc.**—Preston, Prestwich and Withington. *E.L.* Near Warrington (C.F.J.); Lostock, occ. 1890 (Stott); Crosby sand-hills, 1913 (A.W.H.).

**Ches.**—Marple, Alderley, Wallasey and West Kirby. *E.L.* Chester, at e. l. (Do.); Hale (Tp.); Thelwall, l. c. (J. Coll.); Stockport, l. c. (C.J.F.); *D.L.* Brooklands (G.S.); Chester, 1918 and 1920 n. c. (S.G.S.); Alvanley, f. c. (Carr); Wallasey, c. (J.W.G.).

**Orthosia iota**, Clerck. Common and general.

**Orthosia macilenta**, Hb. A rather local moth.

**Lanc.**—Agecroft, Grange and Woolton. *E.L.* Silverdale (W.P.S.); Burnley, one in 1911 (A.E.W.); Knowsley Park

and Simonswood Moss 1897 (J. Cot.); Lancaster dist. f. c. (C.H.F.).

**Ches.**—Bowdon, n. c., Eastham Wood, Rock Ferry, and Puddington. *E.L.* Bowdon, c., Chester, n. c. at e. l., Ince Marshes, near Tarporley and at Delamere. *D.L.* Delamere, 1918-19, v. c. in 1920 (S.G.S.); occurs more or less commonly every year (W.M.); Alvanley, one in 1919 (Carr); Alderley (G.S.).

**Variation.**—Var. *obsoleta*, Tutt, Delamere, two in 1918 (S.G.S.); var. *straminea*, Tutt, Delamere, 1920 (W.M.).

#### ANCHOCELIS, *Gn.*

**Anchocelis rufina**, L. Not common except some seasons at Delamere.

**Lanc.**—Cresby and Hale. *E.L.* Burnley, sc. (A.E.W.); Silverdale (W.P.S.); Lakeside, c. in 1921 (R.T.); Lancaster dist. f. c. (C.H.F.).

**Ches.**—Alderley, c., Eastham, Storeton, Bidston, Staley Brushes, c. and Wirral, sc. *E.L.* Delamere usually c. (W.M.); Alderley, 1909 (G.S.).

**Anchocelis pistacina**, Fb. Generally distributed and common.

**Anchocelis lunosa**, Haw. Common in Cheshire but apparently scarce in Lancashire.

**Lanc.**—Knowsley Park, one (J. Cot.); Ainsdale (W.A.T.).

**Ches.**—Bidston lighthouse (C.S.G.); Wallasey (J.); Wirral dist. (C.F.B.) *E.L.* Vicar's Cross, nr. Chester, f. c. (P.C.); nr. Tarporley (Stk.); Bowdon (Tp.); Chester, c. at e. l. *D.L.*; ditto (S.G.S.); Delamere, 1919 (J.W.G.); Alvanley, f. c. (Carr); Bickerton, f. c. (G.S.).

**Anchocelis litura**, L. Common and generally distributed except in E. Lancs. where it seems to be scarce.

#### CERASTIS, *Och.*

**Cerastis vaccinii**, L. Abundant everywhere.

**Cerastis spadicea**, Hb. Local and seldom plentiful.

**Lanc.**—Agecroft (J.C.); Aigburth (W.J.); Preston (J.B.H.); *E.L.* Staley Brushes, 1914 (R.C.); Silverdale (W.P.S.); Lancaster dist. c. (C.H.F.).

**Ches.**—Chester (A.O.W.); Dunham Park (J.C.); Wallasey (C.S.G.); Wirral, n. c. (J.F.B.) *E.L.* Eastham (Pr.); nr. Tarporley (Stk.); Delamere (Day) *D.L.* Bidston, 1906, f. c. (J.J.R.); Brooklands, 1909 (G.S.); Eastham, 1918 (W.A.T.); Alvanley, 1917-18 (Carr); Chester, f. c. at e. l. (S.G.S.); Delamere, generally a few each season (W.M.).

**Variation.**—The var. *subnigra*, Haw. has been taken at Bidston (J.J.R.); and at Delamere (W.M.).

#### SCOPELOSOMA, *Curt.*

**Scopelosoma satellitia**, L. Common among oak in both counties.

#### XANTHIA, *Och.*

**Xanthia citrago**, L. Local and not common.

**Lanc.**—Aigburth (W.J., C.S.G.); nr. Preston (J.B.H.); Withington (J.C.) *E.L.* Knowsley Park, formerly freq., not seen since 1900 (J. Cot.).

**Ches.**—Bowdon and Wilmslow (J.C.); Bromborough (C.S.G.); Dunham Park (J.C.M.); Chester (A.O.W.); Rock Ferry and Puddington (J.F.B.) *E.L.* Knutsford and Tabley, n. u. (Day); Stockport (C.F.J.); *D.L.* Chester at e. l. few, 1918 and 21 (S.G.S.); Balderton nr. Chester, v. c. 1921 (T.G.N.); Taxal, 1896 (B.H.C.).

**Xanthia fulvago**, L. (*cerago*, Fb.). Common and generally distributed among sowthistles.

**Variation.**—The var. *flavescens*, Esp. has occurred at Eccleston Mere (J. Cot.); Crosby (L.W.G.); and in Cheshire at Wallasey (W.M.); Siddington (C.F.J.); and Delamere Forest (S.G.S.).

**Xanthia flavago**, Fab. (*silago*, Hb.). Also generally distributed among sowthistles but is not so common as the last.

**Xanthia aurago**, W.V. Very rare.

**Lanc.**—Two at Lydiate (C.S.G.) *E.L.*

**Ches.**—One at Bowdon about 1882 (Tp.) *D.L.*

**Xanthia gilvago**, Esp. Scarce, there are no Lancashire records.

**Ches.**—Eastham, 1868 (W. Lello); Ness and Puddington (J.F.B.) E.L. Wallasey, 1901 (A.H.); Delamere Forest, 1906 (R.T.); 1911 (B.H.C.); Chester, 1904, 1918 and 1920 (S.G.S.); Alvanley, 1917 and 1919 (Carr).

**Xanthia circellaris**, Hufn. Common and generally distributed. E.L.

#### CIRRHOEDIA, Gn.

**Cirrhoedia xerampelina**, Hb. Usually considered a scarce moth but if looked for in the larval stage would probably be more often found.

**Lanc.**—Clitheroe (J.B.H.); nr. Manchester (G. Campbell); Withington (Aspinwall) E.L. Withington, 1906 (E. Petrie); Windermere (A.E.W.); N. Lancs. n. c. but general (C.H.F.).

**Ches.**—Denhall (W.L.); Chester (Day); f. c. at e. l. (A., Do.); Vicar's Cross (P.C.); White Hall, nr. Tarporley (Stk.); Ince Marshes, f. c. (N.) D.L. Chester, at e. l. 1899, 1919, and 1920 (S.G.S.).

**West.**—Arnside (C.H.F.).

**Variation.**—The var. *unicolor*, Gn. has occurred at Clougha and Arnside (C.H.F.).

#### Fam. COSMIIDÆ, Gn.

#### TETHEA, Och.

#### Tethea subtusa, Fb.

**Lanc.**—Common in the Preston dist. (J.B.H.); Chat Moss and Pendleton, n. c. (J.C.) E.L. Lostock, occ. (Stott); Ainsdale, 1913 (W.A.T.).

**Ches.**—Sale and Bowdon (J.C.); Wallasey (C.S.G.) E.L. Chester, 1899 (Do.); Vicar's Cross, 1901 (P.C.); Stockport (C.F.J.); D.L. Ashton-on-Mersey, 1913 (V.C.); Chester, 1920 (S.G.S.).

#### Tethea retusa, L.

**Lanc.**—Liverpool dist. occ. (W.J.); Formby (C.S.G.). E.L.

In the previously published portion of the revision of the Ellis List comprising the Macro-Lepidoptera, the nomenclature adopted is that of South's Synonymic List of British Lepidoptera published in 1884. Meyrick's Revised Handbook of British Lepidoptera, 1927, will probably be used as the standard authority for classification and nomenclature of the Micro-Lepidoptera for many years to come and for that reason has been adopted here. It will be necessary when indexing the finished revision of the Ellis List to indicate changes of name which have been generally accepted since its publication was begun in 1913.

#### PYRALIDINA.

##### Fam. PHYCITIDÆ.

##### ANERASTIA, Hub.

**Anerastia lotella**, Hub. Confined to the sandhills and not common.

**Lanc.**—Lytham (J.B.H.); E.L. Crosby, 1907 (W.M.); Formby, 1921 and 1930 (*Id.*).

**Ches.**—Wallasey (Pr.) D.L.

##### \*PEMPELIA, Hub.

**Pempelia dilutella**, Hub. (*adornatella*, Tr.). Casual only, there are no records since the E.L. which gives:—Prescot, Lanc. and Prenton, Ches., both by Mr. Gregson.

##### SALEBRIA, Zell.

**Salebria fusca**, Haw. (*carbonariella*, F.R.). Abundant on heaths and mosses especially after the vegetation has been burned.

##### Salebria betulæ, Göze.

**Lanc.**—Chat Moss (J.B.H.); Botany Bay Wood and Woolden Wood (J.C.).

**Ches.**—Delamere Forest, where larvæ may be found in abundance every year (W.M.).

**Salebria palumbella**, Fab. A well known immigrant, sometimes plentiful.

**Lanc.**—Silverdale (W.M.).

**Ches.**—Delamere (W.M.); Rudheath (A.W.B.); Thurstanston (W.A.T.); Bidston Hill, Haddon Wood and Ness (A.O.W.) D.L.

## DIORYCTRIA, Zell.

**Dioryctria splendidella**, H-S. A rare species only recorded from Ches. viz.:—Wallasey, one in 1891 (H. B. Jones); Chester at e. l. by Dr. R. Dobie.

**Dioryctria abietella**, Fab. Also a scarce species.

Lanc.—Silverdale (J.B.H.).

Ches.—Bidston (W.J.), E.L. Delamere, occ. (W.M., W.A.T.).

## PHYCITA, Curt.

**Phycita spissicella**, Fab. A rare species not recorded from Lanc.

Ches.—Dunham Park (J.C.), E.L. Delamere, once (W.G.C.).

West.—Arnside, bred from lar. (W.M.).

## PLODIA, Guen.

**Plodia interpunctella**, Hub. A well known pest on dried fruit, especially raisins.

Lanc.—Liverpool warehouses, usually to be found, sometimes in abundance (W.M.); Grange (A.E.W.).

## EPHESTIA, Guen.

**Ephestia elutella**, Hub. This and the other members of the genus are all warehouse pests and usually more or less abundant.

Lanc.—Liverpool (W.M.); Grange (A.E.W.); Cark (W.G.C.); Burnley (W.G.C.).

**Variation.**—The late C. S. Gregson named several forms of this moth considering them to be distinct species; var. *roxburghii*, a dark form, has since been taken and var. *semirufa*, Haw., a reddish form, occasionally occurs. This latter must not be confused with *semirufa*, Stt. which is a distinct species.

**Ephestia ficulella**, Barr. Liverpool warehouses (C.S.G.) E.L. I once bred this from raisins purchased in Liverpool (W.M.).

**Ephestia cautella**, Walk. (*passulella*, Barr.). Preston (J.B.H.), E.L. Very abundant in Liverpool warehouses and probably in similar places elsewhere.

**Ephestia calidella** (*ficella*, Doug.).

Lanc.—Prestwich (J.C.M.), E.L. Liverpool (W.A.T., W.M.).

**Ephestia kuhniella**, Zell. Abundant in corn and rice mills.

## EUZOPHORA, Zell.

**Euzophora pinguis**, Haw. Rare. Recorded from Birkenhead in Stainton's Manual and only noted since at Chester by Arkle at e. l.

## HOMŒOSOMA, Curt.

**Homœosoma binævella**, Hub. Occasional only.

Lanc.—Grange, Yewbarrow in 1920 (A.E.W.); Formby, in 1922 (W.A.T.).

West.—1909, Arnside (W.G.C.); Witherslack, one in 1915 (W.M.).

**Homœosoma nimbella**, Zell. Rather more frequent than the last.

Lanc.—Morecambe (J.B.H.), E.L. Humphrey Head and Grange (A.E.W.).

Ches.—Wallasey and Flaybrick Hill (C.S.G.); E.L. Wallasey, 1907 (C.B.W.).

## MYELOIS, Hub.

**Myelois ceratoniae**, Zell. Occasionally but regularly found in dried dates. Most of the specimens bred have been var. *pryerella*, Vaughan. Liverpool (W.M.).

## EUROHODOPE, Hub.

**Eurohodope marmorea**, Haw. Scarce and local on Arnside Knott, West. (W.M.).

**Eurohodope advenella**, Zinck. The only record is Banks of the Wyre (J.B.H.). E.L.

## CRYPTOBLABES, Zell.

**Cryptoblabes bistriga**, Haw. Another scarce species.

Lanc.—Brockholes Wood, nr. Preston, one (J.B.H.); Woolton Wood, nr. Liverpool, one (C.S.G.) E.L.

Ches.—Bidston Park Wood (J.F.B.); Dunham Park (J.C.) E.L.; Delamere, Kennel Wood, one in 1916 (F.N.P.).

## ACROBASIS, Zell.

**Acrobasis consociella, Hub.** Rare.**Lanc.**—Silverdale (J.B.H.) *E.L.* Grange, one in 1921 (A.E.W.).**Ches.**—One in Clifton Park, Birkenhead (J.B.F.); bred from the rough plantation beyond Hooton (C.S.G.) *E.L.***Acrobasis tumidana, Schiff.** Very rare.**Lanc.**—Chat Moss (J.C.); Grange, one in 1919 (A.E.W.).**Ches.**—Chester at c. l. (Arkle). *D.L.*

## GALLERIADÆ.

## MELIPHORA, Guen.

**Meliphora grisella, Fab.** Seldom recorded but probably not rare in old beehives.**Lanc.**—Liverpool dist., occ. (C.S.G.) *E.L.* Grange, occ. (A.E.W.); Holker Moss (W.M.).

## CORCYRA, Rag.

**Corcyra cephalonica, Stt.** Recorded only from Liverpool warehouses where, as in 1921, it does great damage to stored seeds. Common near the docks in 1917 (W.A.T., W.M.); great numbers were found in a warehouse in Blackstock Street, Liverpool, in 1921 infesting ground (monkey) nuts (W.M.).

## APHOMIA, Hub.

**Aphomia sociella, L.** Not common.**Lanc.**—Banks of the Wyre *E.L.*; Silverdale (A.E.W.).**Ches.**—Lanes about Wallasey (W.J.); Burton, Ness and Puddington (A.O.W.), *E.L.* Chester (N.); Delamere (A.), *D.L.*

## GALLERIA, Fab.

**Galleria mellonella, L.** Only once noted, Burnley, Lanc. A fine melanic specimen was bred by Mr. A. E. Wright, in 1911.

## Fam. CRAMBIDÆ.

## CRAMBUS, Fab.

**Crambus hamellus, Thunb.** Local and infrequent.**Lanc.**—Chat Moss (J.C.), *E.L.***Ches.**—Carrington Moss (J.B.H.); E. Ches. (A.O.W.); Nr. Eastham (C.S.G.); Lindow Common and Wilmslow (J.C.M.). *E.L.* Rudheath (Day); N.E. Ches. (N.G.) *D.L.* Delamere, a few each year 1910 to 1915 (W.M.).**Crambus uliginosellus, Zell.** Scarce and local, probably overlooked from its resemblance to the next species among which it flies.**Lanc.**—Holker Moss (W.M., A.E.W.).**Ches.**—Delamere, near the gull pond, and at Hatchmere (W.M.).**Crambus pascuellus, L.** Abundant on heaths and mosses throughout.**Crambus dumetellus, Hub.** There are no recent records.**Lanc.**—Chat Moss (J.C.).**Ches.**—Wallasey sandhills (J.F.B., C.S.G.).**Crambus pratellus, L.** Common throughout.**Crambus culmellus, L.** Abundant everywhere.**Crambus hortuellus, Hub.** Common in meadows and grassy lanes.**Crambus falsellus, Schiff.** Local on moss-covered walls.**Lanc.**—Humphrey Head (A.E.W.); Silverdale (W.M.); Grange (A.E.W., W.M.).**Ches.**—Wilmington (J.C.); Hooton (C.S.G.); Ness and E. (A.O.W.) *E.L.* Chester (A.); N.E. Ches. (N.G.) *D.L.***West.**—Witherslack (W.M.); do. (A. E. Tonge).**Crambus pinellus, L.** Generally distributed but not common.**Crambus margaritellus, Hub.** Common on heaths and mosses.**Crambus furcatellus, Zett.** Recorded only from Coniston Old Man (J.B.H.) *E.L.***Crambus latistrius, Haw.** Local.**Lanc.**—Crosby sandhills (C.S.G., W.J.); Formby, n. c. (W.M.).**Ches.**—Wallasey (J.B.H., J.C.M.); Claughton (J.F.B., C.S.G.) *E.L.* Caldy, locally c. (W.M.).

**Crambus perlellus, Scop.** Common on mosses and marshes.

**Variation.**—The var. *warringtonellus*, Stt. and intermediate forms are usually found with the type.

**Crambus inquinatellus, Schiff.** Generally distributed but not common.

**Crambus geniculeus, Haw.** Common. Usually found near the coast.

**Crambus contaminellus, Hub.** Local on salt marshes.

**Lanc.**—Salt marshes nr. Preston (J.B.H.); Grange (Id.) E.L.

**Ches.**—Dee Marsh, near Puddington and Denhall, sc. (A.O.W.) E.L.

**Crambus salinellus, Tutt.** Recorded only from salt marsh at Cark, Lanc. (A.E.W.) in 1919, do. in 1922 (W.G.C.).

**Crambus tristellus, Fab.** Abundant throughout.

**Crambus selasellus, Hub.** On salt marshes, local but usually common.

#### EUCHROMIUS, Guen.

**Euchromius ocellatus, Haw.** Very scarce.

**Lanc.**—One at light, Grange (A.E.W.).

**Ches.**—Eastham Wood (C.S.G., J.B.H.); Ches. coast (C.S.G. Entom. IV, pp. 49, 263).

#### CHILO, Zinck.

**Chilo phragmitellus, Hub.** Recorded from Crosby Marsh (G. A. Harker) and from Bidston Marsh (F.N.P., J.F.B.) E.L. Leasowe (Pr.) D.L.

#### Fam. PYRAUSTIDÆ.

#### ACENTROPUS, Curt.

**Acentropus niveus, Ol.** Said to be common in the lake in Eaton Park, nr. Chester, but I do not know the authority.

#### SCHENOBIA, Dup.

**Schenobius forficellus, Thunb.** Has only once been recorded since the Ellis List in 1887.

**Lanc.**—Nr. Preston (J.B.H.); Pendleton and Withington. E.L.

**Ches.**—Bidston Marsh and Oxton, sc.; Little Neston and Burton, Chester by the canal, c. (A.O.W.); canal between Macclesfield and Marple and at Cheadle Hulme (H.H.C.); Liscard (C.S.G.) E.L. Wallasey, n. c. (Pr.); Chester at e. l. (A.); N.E. Ches. (N.G.) D.L. Rostherne Mere (A.W.B.).

#### DONACAULA, Meyr.

**Donacaula mucronella, Schiff.** Very rare, there are no new records.

**Lanc.**—Preston, on canal, by T. Cooper (J.B.H.).

**Ches.**—Liverpool dist. probably Bidston is meant (C.S.G.).

#### CATACLYSTA, Hub.

**Cataclysta lemnata, L.** Ellis and Day say in their lists "Abundant everywhere" but I have not found it so. They give no localities.

**Lanc.**—Simonswood (J. Cot.); Gathurst nr. Wigan (Hop.).

**Ches.**—Wallasey, c. (C.B.W.); Macclesfield (G.W.); Helsby Marshes (Carr.).

#### NYMPHULA, Schrank.

**Nymphula stagnata, Don.** E.L. and D.L. both say "Fairly common" without giving localities. There have been no new records received.

#### Nymphula stratiotata, L.

**Lanc.**—Crosby (G. Harker); Old Trafford (J.C.); Preston canal nr. Salwick (J.B.H.); Silverdale (J.C.M.) E.L.

**Ches.**—Bidston Marsh (F.N.P.); Chester and Ness (A.O.W.); Delamere (J.C.); Dunham Park (id.); Liscard (C.S.G.) E.L. Chester at e. l. (A.); Hale (Tp.) D.L. Macclesfield (G.W.).

#### HYDROCAMPA, Latr.

**Hydrocampus nymphaea, L.** Generally distributed and common.

NOTARCHA, *Meyr.*

**Notarcha ruralis**, Scop. (*verticalis*, Schiff.). Common, but local, among nettles.

EURRHYPARA, *Hub.*

**Eurrhypara urticata**, L. Common and general.

PHLYCTÆNIA, *Hub.*

**Phlyctænia crocealis**, Hub. Local amongst fleabane.

**Lanc.**—Grange, Preston, Kirkby and Lydiate, Manchester dist. **E.L.** Formby, c. (W.M.); Grange (A.E.W.); Blackpool (W.G.C.).

**Ches.**—Bollin Valley (J.C.) **E.L.** Macclesfield (G.W.).

**West.**—Witherslack, c. (A.E.W., W.M.).

**Phlyctænia lutealis**, Hub. Common and general.

**Phlyctænia ferrugalis**, Hub. Only of occasional occurrence.

**Lanc.**—Crosby, once (G. Harker); Lytham, occ. (J.B.H.); **E.L.** Formby, a few annually (W.M.); Blackpool (W.G.C.); Burnley (A.E.W.); Grange c. at light (A.E.W.).

**Ches.**—Bidston, Rockferry, Ness and Wallasey (J.F.B.); Saughall Massey (C.S.G.) **E.L.**

**Phlyctænia prunalis**, Schiff. Common and general.

**Phlyctænia terrealis**, Treits. Local and uncommon.

**Lanc.**—Grange (J.B.H.); **E.L.** Preston (G.W.).

**Ches.**—Puddington, once (J.F.B.). **E.L.**

**West.**—Arnside, one in 1906 (W.M.).

**Phlyctænia fuscalis**, Schiff. Rather more frequent than the last.

**Lanc.**—Manchester dist. (J.C.); Preston dist. c. among yellow rattle (J.B.H.) **E.L.** Silverdale (A.E.W.); Southport (W.G.C.); Formby, nr. Moss Bridge Railway Station f. c. (W.M.).

**Ches.**—Bidston Marsh, c. (C.S.G.); Wirral (J.F.B.) **E.L.** Sealand Pond (A.); N.E. Ches. (N.G.) **D.L.** Carrington (G.W.).

**Phlyctænia sambucalis**, Schiff. Common and generally distributed.

NOMOPHILA, *Hub.*

**Nomophila noctuella**, Schiff. Generally distributed but infrequent.

PSAMMOTIS, *Hub.*

**Psammotis pulveralis**, Hub. The only record of this species is Stockport, scarce, (R. S. Edleston, Zool. 1845, p. 1220).

PYRAUSTA, *Schrank.*

**Pyrausta octomaculata**, Fab. Locally common on limestone.

**Lanc.**—Grange (J.B.H.); Silverdale (S.J.C.); **E.L.** Winster (J. Cot.); Lakeside, Windermere (Tait); Silverdale (A.E.W.).

**Ches.**—Macclesfield, one (G.W.).

**West.**—Witherslack and Arnside, v. c. (W.M.).

**Pyrausta cingulata**, L. Local on the limestone.

**Lanc.**—Silverdale J.B.H.); **E.L.** do. (W.M.); Grange, c. (A.E.W.); Carnforth, Warton Crag, c. (W.M.).

**Ches.**—Wallasey sandhills (F.N.P., etc.) **E.L.** Macclesfield, one (G.W.).

**West.**—Witherslack, f. c. (A.E.W., W.M.); Arnside, c. (W.G.C.).

**Pyrausta sanguinalis**, L. Plentiful among wild thyme on the Wallasey sandhills, **E.L.** This is still the case although the area is more restricted than formerly (W.M.).

**Pyrausta purpuralis**, L. Local but fairly common.

**Lanc.**—Ditton (C.S.G.); Silverdale (S.J.C., etc.) **E.L.** Holker Moss (A.); Winster (J. Cot.); Grange, c. (W.M.); Formby c. (*id.*).

**Ches.**—Bollin Valley and Knutsford (J.C.); Parkgate and Sutton (C.S.G.); Ledsham and Wallasey (J.F.B.) **E.L.** Wallasey in 1920 (G.W.).

**West.**—Witherslack and Arnside, c. (W.M., etc.).

**Pyrausta ostrinalis**, Hub. Local and fairly common. Some authors regard this as a variety of the preceding but I think it is quite distinct.

**Lanc.**—Kenyon (J.C.); Silverdale (J.C.M.) **E.L.** Grange, c. (W.M.); Silverdale (A.E.W.).

**Ches.**—Knutsford (J.C.); Wallasey sandhills (F.N.P., etc.). **E.L.**

**West.**—Witherslack (W.M.); Arnside (W.G.C.).

**Pyrausta aurata, Scop.** Very scarce. Recorded only from Lanc., viz. Lydiate (C.S.G.) and Silverdale (J.C.M.). *E.L.*

**Pyrausta cespitalis, Schiff.** Not infrequent where it occurs.

**Lanc.**—Silverdale and Grange (A.E.W.); Formby (W.M.).

**Ches.**—Wallasey (W.M.); Macclesfield (G.W.).

**West.**—Witherslack (A.E.W., W.M.).

**Pyrausta olivalis, Schiff.** Ellis says "Common and generally distributed" but this does not now appear to be the case.

**Lanc.**—Silverdale (A.E.W.); Holker (W.M.).

**Ches.**—Rostherne (A.W.B.); Great Budworth (*id.*); Macclesfield (G.W.).

#### MICROSTEGA, Meyr.

**Microstega pandalis, Hub.** Very rare.

**Lanc.**—Manchester dist. (Stainton's Manual); Silverdale, one in 1906 (A.E.W.).

**West.**—Witherslack, one in 1915 (W.M.).

#### BOTYS, Treit.

**Botys mutualis, Zell.** A specimen of this European species is recorded by C. S. Gregson as having been captured near Bolton in 1889.

#### LOXOSTEGE, Hub.

**Loxostege sticticalis, L.** Rare. There are no fresh records.

**Lanc.**—Ashton-under-Lyne (J.C.); Chat Moss (W.J.); Lytham (J.B.H.). *E.L.*

**Ches.**—Wallasey Sandhills; seven specimens recorded by C. S. Gregson, this locality being also referred to by J. F. Brockholes and R. S. Edleston, *Zool. 1845*, p. 1220. *E.L.*

**Loxostege palealis, Schiff.** Very rare. Only recorded from Lanc. in *E.L.* Barton Moss, one (J.C.); a specimen at Manchester (W. P. Weston, *Entom. X*, 92); one at Seaforth in August, 1876 (W. Whitwick).

#### SCOPARIA, Haw.

**Scoparia resinea, Haw.** Recorded from Croxteth and Allerton, Lanc. (C.S.G.); and from Birkenhead dist. by Stainton's Manual. *E.L.*

**Scoparia angustea, Steph.** Common and generally distributed.

**Scoparia vafra, Meyr.** Described by Meyrick as new to science from a single specimen captured at electric light at Chester by Dr. Dobie (*E.M.M.*, 1913, p. 156).

**Scoparia murana, Curt.** Local on moss covered walls.

**Lanc.**—Longridge, c. at l. (J.B.H.); Manchester dist., Stainton's Manual, *E.L.* Burnley (W.G.C., A.E.W.).

**Ches.**—Prenton, Birkenhead (C.S.G.); Tatton Park (J.C.); Wirral and E. Ches. (A.O.W.) *E.L.* Macclesfield (R.S.); do. in 1915 (G.W.).

**Scoparia mercurella, Steph. (frequentella, Stt.).** Common and general.

**Scoparia crataegella, Hub.** Common in the limestone districts.

**Lanc.**—Silverdale and Windermere (J.B.H.) *E.L.* Grange (A.E.W.); Silverdale, c. (W.M.); Humphrey Head (A.E.W.).

**Ches.**—Bowdon and Bucklow Hill (J.C.) *E.L.* Macclesfield (G.W.).

**West.**—Witherslack and Arnside, c. (W.M.); Meathop Hill (A.E.W.).

**Scoparia truncicolella, Stt.** Fairly common throughout, it likes the neighbourhood of pine trees.

**Scoparia pallida, Steph.** Local in marshy places.

**Lanc.**—Chat Moss (J.C.); Simonswood Moss and Crosby (C.S.G.); Penwortham nr. Preston and Pilling Moss (J.B.H.) *E.L.* Freshfield, n. c. (W.M.).

**Ches.**—Bidston Marsh (C.S.G.); E. Ches. (A.O.W.); Macclesfield (G.W.).

**Scoparia cembrae, Haw.** Local and not common.

**Lanc.**—Pendleton and Cheetham Hill nr. Manchester (J.C.); Windermere, n. c. (J.B.H.); Burnley (A.E.W.); Grange, f. c. (*id.*).

**Ches.**—Birkenhead, once, and Denhall (A.O.W.); Neston and Woodchurch (C.S.G.) *E.L.*

**Scoparia dubitalis, Hub.** Local and usually common.

**Lanc.**—Silverdale, c. (W.M.); Grange (A.E.W.).

**Ches.**—Paddington and E. Ches. (A.O.W.); E.L. Dunham Park in 1909 (A.W.B.).

**West.**—Witherslack (A.E.W.).

**Scoparia ambigualis, Treit.** Abundant everywhere.

**Variation.**—At Burnley an unicolorous fuscous and an ochreous form is of rare occurrence (A.E.W., W.G.C.).

**Scoparia ulmella, Knaggs.** Not rare on the Lancashire side of Windermere (J.B.H.) E.L.

#### EVERGESTIS, Hub.

**Evergestis extimalis, Scop.** Once only at Silverdale, Lanc. by (A.E.W.).

#### MESOGRAPHE, Hub.

**Mesographe forficalis, L.** Common in gardens specially where horse radish is grown.

#### Fam. PYRALIDIDÆ.

#### ENDOTRICHA, Zell.

**Endotricha flammealis, Schiff.** Has only been noted once when G. Wynne took several specimens at Carrington, Ches. in 1922.

#### PYRALIS, L.

**Pyralis glaucinalis, L.** Scarce and local.

**Lanc.**—Barton (J.C.); Hale Bank, one (C.S.G.) E.L. Manchester, in railway station (A.E.W.).

**Ches.**—Carrington (J.C.); Cheadle Hulme (H.H.C.); one at New Brighton (J.C.M.) E.L. Altringham one at light (A.W.B.); Chester, occ. at e. l. (A.) D.L.

**Pyralis costalis, Fab.** Only once taken, Wallasey in 1920 (G.W.).

**Pyralis farinalis, L.** A common species around stables and granaries.

#### AGLOSSA, Latr.

**Aglossa pinguinalis, L.** Fairly common in the neighbourhood of stables.

**Aglossa cuprealis, Hub.** Scarce and local.

**Lanc.**—Barton (J.C.) E.L. Old Trafford, in 1922 (G.W.).

**Ches.**—Chester (A.) D.L.

#### Fam. PTEROPHORIDÆ.

#### OXYPTILUS, Zell.

**Oxyptilus parvidactylus, Haw.** Recorded only from Grange (J.B.H.) E.L. and from Witherslack, West. where it is common (W.M.).

**Oxyptilus hieracii, Stt. non Zell. (pilosellæ, Zell.).** This species which is included in the Ellis List on the authority of J. F. Brockholes from Bidston, Ches. should be deleted, it was probably confused with the next species.

**Oxyptilus heterodactylus, Vill. (teucrii, Jord.)** There is only one record in the Ellis List viz.—Delamere (J.B.H.).

**Lanc.**—Silverdale (W.M.); Grange, c. (A.E.W.); Holker Moss (W.M.); Formby sandhills, c. (W.M.).

**Ches.**—Caldy, in 1925 (W.M.).

#### PLATYPTILIA, Hub.

**Platyptilia cosmodactyla, Hub.** Scarce, all the records are from the Ellis List.

**Lanc.**—Hale (C.S.G.).

**Ches.**—Bidston and Tranmere (J.F.B.); Claughton (C.S.G.).

**Platyptilia acanthodactyla, Hub.** Also a very scarce species.

**Lanc.**—Dutton (J.F.B.); Grange (J.B.H.); Hale Marsh (C.S.G.); Formby, one in 1933 (W.M.).

**Platyptilia calodactyla, Schiff.** One specimen only, Formby, Lanc. (W.M.) in 1922.

**Platyptilia gonodactyla, Hub.** Common and generally distributed among coltsfoot.

**Platyptilia ochrodactyla, Hub.** Very scarce among tansy.

**Lanc.**—Bedford Leigh (J.C.); Banks of the Alt and at Hale (C.S.G.); Manchester (Stainton's Manual); Grange (J.B.H.); Pendlebury (R. S. Edleston). *E.L.*

**Ches.**—Bromborough Pool (C.S.G.); Wirral (J.F.B.) *E.L.* Chester (N.); Holford (Day) *D.L.*

**Platyptilia pallidactyla, Haw. (bertrami, Rossi).** Commoner than the previous species and more widely distributed.

**Lanc.**—Dutton, nr. Ribchester and Grange (J.B.H.) *E.L.* Silverdale (A.E.W., W.M.); Ainsdale c. (W.A.T., W.M.).

**Ches.**—Wallasey (W.A.T., C.B.W.); Rostherne (A.W.B.).

**West.**—Arnside (W.M.).

#### ALUCITA, L.

**Alucita tetradactyla, L.** Very local and infrequent.

**Lanc.**—Grange (J.B.H.) *E.L.* Silverdale (A.E.W.).

**West.**—Witherslack (R.E.J.).

**Alucita baliodactyla, Zell.** Very local but fairly common.

**Lanc.**—Grange and Silverdale (A.E.W.).

**West.**—Witherslack, c. (W.M.).

**Alucita pentadactyla, L.** Common and general.

#### ADAINA, Tutt.

**Adaina microdactyla, Hub.** We have only two records for this plume, viz.:—Grange, Lanc. (J.B.H.) *E.L.* and Marbury Park, Great Budworth, Ches. (A.W.B.).

#### PTEROPHORUS, Geoffr.

**Pterophorus osteodactylus, Zell.** Common in N. Lanc. among goldenrod.

**Lanc.**—Silverdale and Grange (A.E.W., W.M.).

**West.**—Witherslack and Arnside, c. (W.M.).

**Pterophorus tephradactylus, Hub.** Local and not common.

**Lanc.**—Grange (J.B.H.); Manchester (Stainton's Manual) *E.L.* Silverdale and Grange (A.E.W.).

**West.**—Witherslack, c. (R.E.J.).

**Pterophorus lithodactylus, Treits.** Local.

**Lanc.**—Grange (J.B.H.); Manchester (Stainton's Manual) *E.L.* Formby, c. among fleabane (W.M.).

**Ches.**—Woodbank Marsh, Shotwick and Sealand, nr. Chester (A.) *D.L.*

**Pterophorus monodactylus, L.** Infrequent.

**Lanc.**—Grange (J.B.H.); *E.L.* Burnley (A.E.W., W.G.C.); Crosby and Formby (W.M.).

**Ches.**—Wirral (J.F.B.) *E.L.* Wallasey and Oxton, nr. Birkenhead (C.B.W.); Thurstaston and West Kirby (W.A.T.); Storeton (W.M.); Delamere (W.M.).

#### STENOPTILIA, Hub.

**Stenoptilia Loweii, Zell.** Very rare. First recorded from Southport by (C.S.G.) a single specimen 2-VIII-57, *E.L.* Ainsdale, Lanc. A specimen was bred by Mr. H. W. Britten from a gathering of Centaurea flowers in 1920, this specimen with its pupa case is now in the collection at the Manchester Museum.

**Stenoptilia bipunctidactyla, Haw.** Common and general.

**Variation.**—The variety *hodgkinsoni*, Gregs. is recorded in *E.L.* as a distinct species from Grange; Jordan and Barrett (E.M.M., 1882, p. 180) consider it to be a var. of *zophodactyla*, Dup.

**Stenoptilia plagiодactylus, Stt.** Scarce and local. Grange (J.B.H.); Manchester (Stainton's Manual). *E.L.*

**Ches.**—Knutsford (J.C.).

**West.**—Witherslack, f. c. (W.M.).

**Stenoptilia pterodactyla, L. (fuscodactyla, Haw.)** Locally common.

**Lanc.**—Grange (J.B.H.); Pendlebury (R.S.E.); Warbreck Moor (C.S.G.) E.L. Crosby sandhills, f. c. (W.M.).

**Ches.**—Dunham Park (J.C.); Wallasey (J.F.B.); E.L. Delamere (W.M.).

**West.**—Witherslack, c. (W.M.).

#### PSYCHINA.

##### Fam. PSYCHIDÆ.

#### STERRHOPTERYX, Hub.

**Sterrhopteryx hirsutella, Hub.**

**West.**—Witherslack (R.C.L.).

#### FUMEA, Haw.

**Fumea casta, Pall. (nitidella, Hub., intermediella, Bruand).**

**Lanc.**—Preston dist. (J.B.H.); Pilling Moss (*Id.*); Staley Brushes and Chat Moss (J.C.); E.L. Formby (W.M.); Grange (A.E.W.).

**Ches.**—Patrick Wood, Lower Bebington (F. Archer); Staley Brushes (J.C.) E.L. Delamere Forest, c. (W.M.).

**West.**—Witherslack (A.E.W.).

#### TORTRICINA:

##### Fam. PHALONIADÆ.

#### LOZOPERA, Steph.

**Lozopera francillana, Fab.** Recorded only from Lytham, Lanc. (J.H.T.). E.L.

**Lozopera dilucidana, Steph.** The only localities are in Lanc., viz.:— Blackpool (J.B.H.); Lytham (J.B.H., J.H.T.). E.L.

#### PHALONIA, Hub.

**Phalonia smeathmanniana, Fab.** Recorded by Mr. Gregson as scarce in the Liverpool district. E.L.

**Phalonia badiana, Hub.** Scarce.

**Lanc.**—Grange (J.H.T.); Longridge (J.B.H.) E.L. One at e. l.; Grange, 1934 (A.E.W.).

**Ches.**—Bidston (C.S.G.); Delamere Forest, one in 1916 (F.N.P.).

**Phalonia cnicana, Doubl.** Rather more frequent than the last.

**Lanc.**—Grange (J.H.T.); Windermere (J.B.H.). E.L. Lancaster (C.H.F.); Burnley (W.G.C.); Holker (W.M.).

**Ches.**—Bidston Moss (C.S.G.) E.L.

**West.**—Arnside (W.M.).

**Phalonia affinitana, Doug.** Found only in salt marshes.

**Lanc.**—Wyre dist. (J.B.H., J.H.T.); marshy places round Liverpool (C.S.G.). E.L. Southport, towards Churchtown (W.M.); Grange, c. (A.E.W.).

**Phalonia vectisana, West.** Another salt marsh species.

**Lanc.**—Near Fleetwood (J.B.H., J.H.T.). E.L. Cark, abundant (A.E.W., W.M.).

**Phalonia griseana, Steph.** Recorded only from Martinmere, nr. Blackpool (J.B.H.) and from Bidston Marsh (J.F.B.). E.L.

**Phalonia luridana, Gregs.** This species was taken near Grange by C. S. Gregson but in spite of much searching it has not since been found.

**Phalonia manniana, F. v. Roesl. (notulana, Zell.).**

**Lanc.**—Martinmere (J.B.H.). E.L. Formby ditches, c. (W.M.).

**West.**—Witherslack (W.M.).

**Phalonia alismana, Rag. (udana, Mey.).** Scarce and local.

**Lanc.**—Formby (W.M.).

**Ches.**—Sealand, nr. Chester (W.A.T.).

**Phalonia rupicola, Curt.** Also a scarce species.

**Lanc.**—Brockholes Wood, nr. Preston (J.B.H.); Ditton Marsh, (C.S.G.). *E.L.*

**Ches.**—Bidston Marsh (C.S.G.); Wirral, sc. (J.F.B.). *E.L.*

**Phalonia roseana, Haw.** Bidston Marsh is the only locality given in the Ellis List, there are no recent records.**Phalonia ciliella, Hub.** Local among cowslip.

**Lanc.**—Grange (J.B.H., J.H.T.); Longridge (J.B.H.). *E.L.*  
Silverdale (W.M.).

**Ches.**—Puddington (J.F.B.); Storeton and Wallasey (C.S.G.), *E.L.*

**West.**—Witherslack, c. (W.M.).

**Phalonia nana, Haw.** Common and generally distributed among birch.

**Lanc.**—Chat Moss (J.C.); Grange (J.H.T.). *E.L.* Simonswood Moss and Knowsley Park, c. (W.M.); Holker Moss (A.E.W.).

**Ches.**—Delamere Forest, c. (W.M., A.W.B.); Carrington Moss (A.W.B.).

**Phalonia atricapitana, Steph.** Common among ragwort specially near the coast.

**Lanc.**—Blackpool, Crosby and Lytham. *E.L.* Grange (A.E.W.). Crosby, Formby and Knowsley (W.M.).

**Ches.**—Birkenhead and Wallasey *E.L.* Wallasey and Caldy (W.M.); Northwich (A.W.B.).

**Phalonia pallidana, Zell. (albicapitana, Cooke).** Taken at Wallasey by N. Cooke (*Zool.* 1861, p. 7800) also by Mr. Brockholes. *E.L.* There are no records since the above.**Phalonia dubitana, Hubn.** I do not find mention of this common species in the Ellis List.

**Lanc.**—Sandhills at Waterloo, Crosby, Formby and Ainsdale (W.M.).

**Ches.**—Wallasey, c. and Thurstaston (W.M.).

**Phalonia curvistrigana, Wilk.** Scarce among goldenrod.

**Lanc.**—Silverdale, one in 1906 and Grange in 1920 (A.E.W.).

**CHLIDONIA, Hubn.****Chlidonia subbaumanniana, Wilk.** Common where found.

**West.**—Witherslack (W.M.).

**Chlidonia baumanniana, Schiff. (hartmanniana, Clerck.).**

**Lanc.**—Longridge (J.B.H.); Preston dist. (J.H.T.) *E.L.*

**Ches.**—Bidston (C.S.G.); Knutsford and near Castle Mill (J.C.); Stockport (R.S.E.). *E.L.*

**West.**—Witherslack, c. (W.M.).

**PHTHEOCROA, Steph.****Phtheochroa sodaliana, Haw. (amandana).** Once only at Witherslack, West. (W.M.).**Phtheochroa maculosana, Haw.** Sometimes common among blue-bells.

**Lanc.**—Brockholes Wood, nr. Preston. *E.L.* Grange and Humphrey Head (W.M.); Burnley dist. (W.G.C.); Sales Wood, nr. Prescot c. (W.M.).

**Ches.**—Eastham Wood and Knutsford. *E.L.* Rostherne (A.W.B.).

**West.**—Witherslack (A.E.W.).

**EUXANTHIS, Hubn.****Euxanthis angustana, Hubn.** Abundant on moors and heaths.**Euxanthis straminea, Haw.** Generally distributed and common.**Euxanthis zoegana, L.** Fairly common.

**Lanc.**—Silverdale (A.E.W., W.M.); Cark, c. (*id.*); Southport (W.G.C.); Windermere (B.H.C.); Grange, c. (A.E.W.).

**Ches.**—Wallasey (C.B.W.).

**West.**—Witherslack (W.M.).

**Euxanthis hamana, L.** Apparently not common anywhere.

**Lanc.**—Crosby (L.W.G.); Lancaster (C.H.F.); Formby (W.M.); Grange (A.E.W.).

**Ches.**—Wallasey (Bell); Caldy (W.M.).

**West.**—Witherslack (W.M.).

HYSTROSIA, *Steph.***Hystrosia inopiana, Haw.** Scarce.**Lanc.**—Preston dist. (J.B.H.). *E.L.* Grange, one in 1920 (A.E.W.).

## Fam. TORTRICIDÆ.

## BATODES.

**Batodes angustiorana, Haw.** Generally distributed and common.CAPUA, *Steph.***Capua favillaceana, Hubn.** Somewhat local.**Lanc.**—Boor's Wood, Hale (C.S.G.); Windermere (J.B.H.). *E.L.* Burnley (W.G.C.); Grange (A.E.W.).**Ches.**—Delamere, locally c. (W.M.); Eastham (W.A.T., W.M.).**West.**—Witherslack (A.E.W.).**Capua grotiana.** Scarce, there are no fresh records.**Lanc.**—Barlow Moor and Irlam (J.C.); Preston (J.B.H.); Dry parts of Lancashire Mosses (C.S.G.). *E.L.*PHILEDONE, *Hubn.***Philedone prodromana, Hubn.** Another species of which there are no fresh records.**Lanc.**—Longridge (J.B.H.); Withnell (J.B.H.). *E.L.***Ches.**—Staley Brushes (J.C., J.B.H.); Storeton (C.S.G.). *E.L.***Philedone gerningana, Schiff.** Local on the mosses.**Lanc.**—Chat Moss, Longridge, Risley Moss and Silverdale. *E.L.* Holker Moss (W.M.).**Ches.**—Bidston Hill, Bidston and Oxton, Staley Brushes. *E.L.* Delamere, Abbot's Moss (W.M.).**West.**—Arnside (Hayward).CACŒCIA, *Hubn.***Cacœcia podana, Scop.** An abundant and generally distributed species.**Variation.**—The melanic form *fuscanæ*, *Stt.* is not uncommon and pretty intermediate forms occur with the type.**Cacœcia xylosteana, L.** Common throughout.**Cacœcia rosana, L.** Another very common species.**Variation.**—On the mosses a very light form prevails as at Holker and Witherslack. The var. *fuscanæ*, *Haw.* is very local near Formby and in one hedgerow appears to have displaced the type; I know of no other locality for this melanic form.**Cacœcia sorbiana, Hubn.** Not common.**Lanc.**—Near Liverpool (C.S.G.); Preston and Longridge (J.B.H.). *E.L.* Grange (A.E.W.).**Ches.**—Chester and Ince (N.); Delamere (A., Col.). *D.L.* Eastham (W.A.T.).**West.**—Arnside (A.E.W., W.M.).**Cacœcia lecheana, L.** Local and infrequent.**Lanc.**—Preston and Prestwich. *E.L.* Southport dist. (W.G.C.); Near Balderstone (W.H.W.); Burnley (A.E.W.).**Ches.**—Bramall, n. c. (H.H.C.); Dunham Park (J.C.); Eastham (J.W.F.); Puddington (J.F.B.). *E.L.* Delamere (W.M.); Rostherne (A.W.B.); Eastham (W.A.T.).**West.**—Arnside (W.M., A.E.W.).PANDEMIS, *Hubn.***Pandemis corylana, Fabr.** Generally distributed throughout.**Pandemis cinnamomeana, Treits.** Local but fairly common.**Lanc.**—Simonswood Moss (W.M.); Grange (A.E.W.).**Ches.**—Delamere, Kennel Wood (W.M.).**Pandemis heparana, Schiff.** Common everywhere.**Pandemis ribeana, Hubn.** Abundant throughout.**Variation.**—I have generally found var. *cerasana*, *Hubn.* and var. *grossulariana*, *Stt.* wherever the type form occurs.

## TORTRIX, L.

**Tortrix loeflingiana**, L. Common and general.

**Tortrix viridana**, L. An abundant pest in oak woods.

**Tortrix paleana**, Hubn. Widely distributed and sometimes plentiful.

**Tortrix viburniana**, Fab. Common on the mosses and moorlands.

**Tortrix rusticana**, Treits. Locally common among sweet gale.

**Lanc.**—Chat Moss (J.C.); Longridge (J.B.H.). E.L. Simonswood Moss (W.M.); Burnley (A.E.W.).

**Ches.**—Bidston Hill (J.F.B.); Lindow Common (J.C.). E.L. Delamere Forest, Hatchmere, f. c. (W.M.).

**Tortrix forsterana**, Fab. Common and widely distributed.

**Tortrix costana**, Fab. Common in marshy places throughout.

**Variation.**—The melanic forms, *liverana*, Mansbr. and *intermedia*, Mansbr. first described from the Liverpool dist. (W.M.) have been found commonly at Burnley (A.E.W., W.G.C.) and near Blackpool (W.G.C.).

**Tortrix unifasciana**, Dup. A common and widely spread species.

**Tortrix muscularana**, Hubn. Also a common species in woodlands.

## EULIA, Hubn.

**Eulia ministrana**, L. Local but usually common in mixed woods.

**Variation.**—The var. *ferrugana*, Hubn. occurs at Delamere in good proportion to the type.

**Eulia politana**, Haw. Occurs freely on the mosses and heaths.

## EXAPETE, Hubn.

**Exapete congelatella**, Clerck. Abundant on the moors in E. Lanc., scarce elsewhere.

**Lanc.**—Rainhill, in 1852 (C.S.G.). E.L. Burnley, ab. (A.E.W., C.S.G.); Fallowfield, nr. Manchester (L. Nathan); Formby, sc. (W.M.); Crosby (A.W.H.); Old Trafford (G.W.).

**Ches.**—Handforth (H.H.C.); Staley Brushes (C.S.G.). E.L. Eastham, once (A.W.H.).

## TORTRICODES, Guen.

**Tortricodes tortricella**, Hubn. (*hyemana*, Hubn.). Abundant in oak woods in spring.

## CNEPHASIA, Curt.

**Cnephasia abrasana**, Dup. and **C. wahlbomiana**, L. appear in the *Ellis List* but as they are not now considered to be British species they are omitted here.

**Cnephasia osseana**, Scop. Local but usually plentiful where found.

**Lanc.**—Chat Moss (J.C.); Longridge (J.B.H.); Silverdale (J.H.T.). E.L. Burnley and Grange (A.E.W.); Lancaster (C.H.F.).

**Ches.**—Bidston Marsh and Ledsham (J.F.B.); Knutsford (J.C.). E.L. Wallasey, c. (W.M.).

**West.**—Witherslack and Arnside (W.M.).

**Cnephasia longana**, Haw. (*ictericana*, Haw.) Generally distributed, common on the sandhills.

**Cnephasia bellana**, Curt. (*penziana*, Wood). Scarce at Arnside and Witherslack, Westmorland (W.M., H.C.H.).

**Cnephasia incanana**, Steph. (*sinuana*, Steph.). Scarce and local.

**Lanc.**—Windermere (J.B.H.). E.L. Burnley, a few in different years (W.G.C.).

**Cnephasia virgaureana**, Treits. A common and general species.

**Cnephasia octomaculana**, Haw. Scarce, there are no recent records.

**Lanc.**—Longridge (J.B.H.). E.L.

**Ches.**—Storeton, few (C.S.G.); Wirral (J.F.B.). E.L.

**West.**—Arnside, in 1905 (C.H.F.).

**Cnephasia chrysanthemana**, Dup. Fairly common in Lancashire.

**Lanc.**—Preston and Longridge, E.L. Waste ground in Liverpool dist. c. (W.M.); Blackpool (W.G.C.); Lostock (Stott).

**Ches.**—Prenton, sc. (C.S.G.). E.L.

**Cnephasia pascuana**, Hubn. Local and not common.

**Lanc.**—Longridge and Preston (J.B.H.). E.L. Burnley (W.G.C.).

**Ches.**—Prenton (W.A.T.); Delamere (F.N.P.).

**Cnephasia conspersana, Doug.** Local in N. Lancs.

**Lanc.**—Preston and Longridge (J.B.H.); Grange (J.H.T.). *E.L.* Humphrey Head (A.E.W.).

**West.**—Witherslack, sc. (W.M.).

**Cnephasia incertana, Treit. (subjectana, Guen.).** An abundant species throughout.**ISOTRIAS, Mey.****Isotrias rectifasciana, Haw. (hybridana, Wilk.).** Fairly common but local.

**Lanc.**—Manchester dist. (J.C.); Preston (J.B.H.). *E.L.* Silverdale and Formby (W.M.); Grange and Burnley (A.E.W.).

**Ches.**—Cheadle, Wallasey and New Brighton; Tranmere and Burton, *E.L.* Sinderland and Rostherne (A.W.B.); Goostrey (A.W.B.); Erbistock (W.M.).

**West.**—Witherslack (W.M.).

**OLINDIA, Guen.****Olindia ulmana, Hubn.** A scarce species with us.

**Lanc.**—Brockholes Wood and Preston (J.B.H.); Windermere (*Id.*). *E.L.* Humphrey Head and Grange (A.E.W.).

**Ches.**—Upton and Parkgate (C.S.G.). *E.L.*

**West.**—Arnside (A.E.W.).

**ARGYROTOXA, Steph.****Argyrotoxa forskaleana, L.** Common and general among sycamore.**Argyrotoxa bergmanniana, L.** Common throughout.

**Variation.**—Var. *luteana*, *Sheld.* and intermediates are common on the sandhills at Wallasey, Ches. and I have also taken this variety at Formby (W.M.).

**Argyrotoxa conwayana, Fab.** Common in N. Lancs. infrequent elsewhere. Ellis's List says "Generally distributed."**PÉRONEA, Curt.****Peronea holmiana, L.** Local, there are few recent records, usually odd specimens only.

**Lanc.**—Irlam, Glazebrook and Barlow Moor (J.C.); Levenshulme (H.H.C.); Preston (J.H.T.); Nr. Sefton Park, Liverpool (J.E.). *E.L.* West Derby, Liverpool (R.W.); Formby, occ. and Silverdale, once (W.M.).

**Ches.**—Cheadle Hulme, n. c. (H.H.C.); New Brighton (C.S.G.); Tranmere (J.F.B.); Wallasey (J.W.E.). *E.L.* Eastham (W.A.T.); Wallasey, n. c. (Bell).

**West.**—Arnside (H.C.H.).

**Peronea contaminana, Hubn.** A variable and abundant species.

**Variation.**—The forms *ciliata*, *Hubn.* and *dimidiata*, *Froel.* occur with many intermediates.

**Peronea caudana, Fab.** Not a common species with us but fairly well distributed.

**Lanc.**—Chat Moss, Croxteth Woods, Fylde dist. and Preston, *E.L.* Near Prescot and at Formby (W.M.); Grange (A.E.W.); Wigan dist. (Hop.); Bolton dist. (A.R.).

**Ches.**—Prenton, c. and Wirral. *E.L.* Wallasey, r. (Bell); West Kirby (W.M.).

**West.**—Witherslack (A.E.W.).

**Variation.**—The var. *emargana*, *Fab.* is occasional at Formby (W.M.).

**Peronea aspersana, Hubn.** Common and general.**Peronea caledoniana, Steph.** Common on the Pennine Moorlands, sometimes abundant but rather local.**Peronea ferrugana, Schiff.** Fairly common but local among birch specially on the mosses.

**Variation.**—Vars. *tripunctata*, *Hubn.* and *bifidana*, *Haw.* are occasionally taken in Delamere Forest. (W.M.).

**Peronea shepherdana, Steph.** Rare, we have only one record: Lytham (J.B.H.), *E.L.*

**Peronea comariana, Zell.** Very local but usually abundant.

**Lanc.**—Preston dist. (J.B.H., J.H.T.). **E.L.** Formby, ab. (W.M.).

**Ches.**—Ab. at Hatchmere, Delamere Forest (W.M.); Rosthern (A.W.B.).

**West.**—Witherslack (A.E.W., W.M.).

**Variation.**—The vars. *proteana*, H-S. and *fuscanata*, Sheld. are c. at Formby; var. *potentillana*, Morris, c. at Formby, r. at Delamere; vars. *brunneana*, Sheld. and *comparana*, Sheld. are c. at Delamere.

\***Peronea latifasciana, Haw. (comparana, Hubn.)** Fairly common and well distributed.

**Variation.**—Var. *comparana*, Hubn. This is the commonest form occurring in our area; it is followed in frequency by var. *labeculana*, Frey.; var. *perplexana*, Barrett, has only been recorded from nr. Preston (J.B.H.). **E.L.** Grange and Hale Wood, both in Lanc. I have no records of the typical form from anywhere in our counties.

**Peronea schalleriana, L. (logiana, Schiff.).** Rare.

**Lanc.**—Windermere (J.B.H.). **E.L.** Grange dist. r. (A.E.W.).

**Ches.**—Eastham, few (C.S.G.); Rockferry (J.F.B.). **E.L.**

**Peronea permutana, Dup.** Our only locality for this very local moth is Wallasey where it is still common though its area is very much reduced.

**Peronea variegana, Schiff.** Abundant throughout.

**Variation.**—The forms *brunneana*, Sheld., *boreana*, Haw., *fuscanata*, Sheld. and *nyctemerana*, Hub., as well as the type are all common, but the white form *argentana*, Sheld. is rare. I have seen only two specimens both from Wavertree, Liverpool (W.M.).

**Peronea rufana, Schiff.** Very local at Witherslack, West. (W.M., A.E.W.).

**Variation.**—The commonest form is var. *ochreana*, Sheld. and vars. *apiciana*, *purpurana* and the type are rare.

**Peronea maccana, Treits.** Manchester (Stainton's Manual II, 233) not since recorded.

**Peronea umbrana, Hub.** Very rare.

**Lanc.**—Windermere, among sloe (J.B.H.) **E.L.**

**Peronea sparsana, Schiff. (sponsana, Fab.).** Common and general throughout.

**Peronea lipsiana, Schiff.** Scarce and local.

**Lanc.**—Grange (J.B.H.) **E.L.**

**West.**—Witherslack (A.E.W., W.M.).

**Variation.**—Var. *sudoriana*, Hub. is the usual form but vars. *griseana*, Sheld. and *costimaculana*, Sheld. as well as the type are met with.

**Peronea mixtana Hub.** Common but local on heaths and mosses.

**Peronea hastiana, L.** Very abundant on the coast sandhills of both Counties.

**Variation.**—This is one of the most variable species in Britain. Of the 79 named forms, fifty-six have been noted in our Counties. One of these var. *brevivittana*, Sheld. has not yet been recorded except from Lanc. In the Formby district it is usually obtainable. For a full account of the varieties see Sheldon 'Entom. LVI, 1923 p. 75 et seq. and 'Entom. LXIII, 1930 p. 148 et seq. where the newer forms are described and many of them figured.

**Peronea literana, L.** A rare species with us.

**Lanc.**—Liverpool district in old woods (C.S.G.); Windermere (J.B.H.) **E.L.** Grange, one in 1921 (A.E.W.).

**Ches.**—Dunham Park (J.C.); Wirral, occ. (J.F.B.). **E.L.** Frodsham (G. Wynne).

**West.**—Arnside, one in 1930 (H.C.H.).

#### Fam. EUCOSMIDÆ.

**SPILONOTA, Steph.**

**Spilonota ocellana, Fab.** Fairly common throughout.

**Spilonota laricina, Zell.** Meyrick considers this to be a form of the preceding species but Mr. F. N. Pierce in his studies of the genitalia finds it to be a good species. I have bred it from larch feeding larvæ found at Delamere and at Witherslack, it is common in both localities (W.M.).

ACROCLITA, *Leđ.*

*Acroclita nævana*, Hub. Very common throughout among holly.

*Acroclita geminana*, Steph. Abundant among *Vaccinium*. This is another moth that Meyrick considers to be only a form of the preceding. I have bred many hundreds of both but have never got *nævana* from *vaccinium* or *geminana* from holly, further, the latter is two to three weeks later in its appearance than *nævana*.

EVETRIA, *Hub.*

*Evetria pinicolana*, Doub. Local but fairly common on Scotch fir.

Lanc.—Simonswood, n. c. ; Sefton Park, Liverpool, occ. ; Formby, c. (W.M.).

Ches.—Delamere Ft. f. c. (W.M.) ; Eastham, sc. (W.A.T.).

West.—Witherslack (A.E.W.).

*Evetria buolianana*, Schiff. Abundant. Sometimes doing considerable damage to young Scotch firs.

*Evetria pinivorana*, Zell. Also an abundant species.

*Evetria turionana*, Hub. Recorded only from Rudheath, Ches. (R.S.E., Zool. II 735) E.L.

*Evetria posticana*, Zell. Although not strictly in our area Mr. A. E. Wright has bred this species from larvæ at Witherslack.

*Evetria purdeyi*, Durr. A single specimen was taken in the Burnley district in 1918 by Mr. A. E. Wright.

ANCYLIS, *Hub.*

*Ancylis lundana*, Fab. Common everywhere.

*Ancylis myrtillana*, Treit. Common on the moors and mosses among *Vaccinium*.

*Ancylis siculana*, Hub. Local and not common.

Lanc.—Grange (J.B.H.) ; Simonswood Moss (C.S.G.) E.L.

Ches.—Knutsford (J.C.) E.L. Rudheath in 1911 (A.W.B.).

West.—Witherslack (W.M., A.E.W.).

*Ancylis obtusana*, Haw. Rare.

Lanc.—Grange (J.B.H., J.H.T.) E.L.

*Ancylis comptana*, Fro. Recorded as common on Flaybrick Hill, nr. Birkenhead (C.S.G.). E.L. It has not since been noted.

*Ancylis unguicella*, L. Local and infrequent.

Lanc.—Grange and Windermere (J.B.H.) E.L. Holker in 1922 (A.E.W.) ; Lancaster 1902 (C.H.F.).

Ches.—Bidston (J.F.B., C.S.G.) ; Bramall (H.H.C.) ; Lindow Common (J.C.) E.L.

*Ancylis uncana*, Hub. Local, common where found.

Lanc.—Grange and Windermere (J.B.H.) ; Longridge (J.H.T.) E.L.

Ches.—Delamere, c. (W.M., A.W.B.).

West.—Witherslack, c. (W.M.).

*Ancylis diminutana*, Haw. Rare, only taken once since E.L.

Lanc.—Pilling (J.H.T.) ; Windermere (J.B.H.) E.L.

Ches.—Bebington, sc. (C.S.G.) E.L. ; Rostherne (A.W.B.).

*Ancylis biarcuana*, Steph. Meyrick regards this as a variety of the preceding but Pierce finds a specific difference in the genitalia.

Lanc.—Grange and Windermere (J.B.H.) ; Pilling (J.H.T.) ; Crosby, c. (C.S.G.) E.L. ; Holker, in 1922 (A.E.W.).

Ches.—Wirral (J.F.B.) E.L.

West.—Witherslack, once (W.M.).

*Ancylis mitterbacheriana*, Schiff. Local and infrequent.

Lanc.—Pendleton (J.C.) ; Windermere (J.B.H.) ; Liverpool district (C.S.G.) E.L. ; Burnley (A.E.W., W.G.C.).

Ches.—Wirral (J.F.B.) E.L. ; Delamere, sc. (W.M., C.B.W.).

GYPSONOMA, *Meyr.*

*Gypsonoma aceriana*, Dup. Local, sometimes common.

Lanc.—St. Annes (J.B.H.) E.L. ; Sefton Park, Liverpool, one in 1907 (W.M.) ; Crosby, c. W.M. ; Formby, few (W.M.).

Ches.—Egremont (C.S.G.) E.L. ; Delamere (F.N.P.) ; Wallasey, one in 1909 (W.M.).

**Gypsonoma minutana**, Hub. Recorded only from Pendleton, nr. Manchester (J.C.) E.L.

**Gypsonoma dealbana**, Frol. Common throughout.

**Gypsonoma neglectana**, Dup. Scarce in recent years, and local.

Lanc.—Manchester district, c. (J.C.); Preston (J.B.H., J.H.T.) E.L.; Boggart Hole Clough, Manchester (A.W.B.); Southport (A.E.W.); Sales Wood, nr. Prescot (W.A.T.).

Ches.—Liscard, c. (C.S.G.); Wirral (J.F.B.) E.L.

**Gypsonoma oppressana**, Treits. Only once recorded, Simonswood Moss in 1908 (W.M.).

#### NOTOCELIA, Hub.

**Notocelia udmanniana**, L. Common throughout.

**Notocelia rosæcolana**, Doubt. Also a very common species.

**Notocelia trimaculana**, Haw. Common throughout.

**Notocelia roborana**, Treits. Rare. Ellis says "Generally distributed and tolerably common". We have only one record since, viz.:—Eastham, Ches., in 1918 (W.A.T.). Ellis does not give localities.

**Notocelia incarnatana**, Hub. Locally common.

Lanc.—Grange (J.B.H.) E.L.; Silverdale and Crosby (W.M.).

Ches.—Wallasey, abundant E.L. (W.M. etc.).

**Variation.**—Our specimens are smaller and darker than Southern examples, sometimes the rosy areas of the type are absent.

**Notocelia tetragonana**, Steph. Rare.

Lanc.—Brockholes Wood and Salwick (J.B.H.) E.L.; Grange, one in 1919 (A.E.W.); Silverdale, one in 1921 (W.M.).

Ches.—Wirral (J.F.B.) E.L.

#### EUCOSMA, Hub.

**Eucosma mercuriana**, Hub. Only recorded from Burnley (A.E.W., W.G.C.).

**Eucosma cruciana**, L. Common among sallow, especially on the coast sandhills.

**Eucosma rubiginosana**, H.-S. Scarce and local.

Lanc.—High Moors in N. Lanc. (J.B.H.); Holker Moss (W.M.); Formby (W.M., W.A.T.).

Ches.—Delamere Forest (W.M.).

**Eucosma quadrana**, Hub. Very local.

Lanc.—Newby Bridge (J.B.H.) E.L.

West.—Witherslack, c. just over the border from Lanc. (A.E.W.).

**Eucosma diniana**, Guen. (*occultana*, Dong). Fairly common among pines throughout.

**Eucosma vacciniana**, Zell. Local and rarely taken.

Lanc.—Barton Moss (J.C.); Windermere (J.B.H.) E.L.; Burnley (A.E.W.); Grange (J.B.H.).

Ches.—Flaybrick Hill, nr. Birkenhead (C.S.G.) E.L. Delamere Forest (W.M.).

**Eucosma corticana**, Hub. Very common in oak woods and very variable.

**Eucosma trimaculana**, Don. Local but common among elms. Ellis does not give localities.

Lanc.—Formby, c. (W.M.); Grange (A.E.W.).

Ches.—Chester in 1910 (A.W.B.).

**Eucosma signatana**, Dongl. Scarce and local.

Lanc.—Scorton, Salwick and Windermere (J.B.H.); Grange (J.H.T.) E.L.; Holker, one in 1934 (A.E.W.).

Ches.—Flaybrick Hill (C.S.G.) E.L.

**Eucosma nanana**, Treits. Recorded only from Windermere (J.B.H.) E.L.

**Eucosma pygmeana**, Hub. Scarce and local.

Lanc.—Burnley (A.E.W.).

Ches.—Delamere Forest (W.M.).

West.—Witherslack (A.E.W.).

**Eucosma ustomaculana**, Curt. The only record is Staley Brushes (J.C., J.B.H.) E.L.

*Eucosma fractifasciana*, Haw. Not recorded since 1889.

**Lanc.**—Halewood and Ditton Marsh (C.S.G.) ; Grange (J.B.H.)  
*E.L.*

**Ches.**—Nr. Tranmere (J.F.B.) *E.L.*

*Eucosma pauperana*, Dup. Very scarce.

**Lanc.**—Chat Moss (J.C.) ; Preston (J.B.H.) *E.L.*

**Ches.**—Bidston Hill, c. (J.F.B., C.S.G.) *E.L.*

**West.**—Witherslack, two in 1921 (A.E.W.).

*Eucosma nigromaculana*, Haw. Generally f. c. among ragwort in both Counties.

*Eucosma citrana*, Hub. Lytham (J.B.H. and Stainton's Manual II, 255) is one of the very few British localities, *E.L.* There are no recent records.

*Eucosma æmulana*, Schlag. We have only one record, viz. Silverdale (A.E.W.).

*Eucosma aspidiscana*, Hub. Very local at Grange, Lanc., and Witherslack, West., but common, among goldenrod. *E.L.* and (A.E.W., W.M.).

*Eucosma cana*, Haw. (*hohenwarthiana*, Treits). Well distributed in Lanc. but only recorded in Ches. from Wirral (J.F.B.) *E.L.*, Wallasey (C.B.W.) and Rostherne (A.W.B.).

*Eucosma fulvana*, Steph. Very scarce.

**Lanc.**—Lancaster (C.H.F.).

*Eucosma scopoliana*, Haw.

**Lanc.**—Grange (J.B.H.) ; Preston (J.H.T.) *E.L.* Lancaster (C.H.F.) ; Bolton district (Stott) ; Cark (A.E.W., W.M.) ; Silverdale (W.M.) ; Formby (W.M.).

**Ches.**—Puddington (J.F.B.) *E.L.*

**West.**—Locally c. at Witherslack with the dwarf form var. *parvulana*, Wilk. (W.M.) ; Arnside (W.M.).

*Eucosma foenella*, L. Once only, at Southport, in 1903 (W.G.C.).

*Eucosma expallidana*, Haw. Very local.

**Lanc.**—Grange (J.B.H.) *E.L.* ; Crosby sandhills n. c. (W.M.).

**Ches.**—Wallasey f. c. some years (W.M.).

*Eucosma cæcimaculana*, Hub. A single specimen recorded from Tranmere, nr. Birkenhead (J.F.B.) *E.L.*

*Eucosma turbidana*, Treits. Local and uncommon.

**Lanc.**—Agecroft and Stretford (J.C.) ; Hoghton and nr. Preston (J.B.H., J.H.T.) ; nr. Stoneyhurst (J.B.H.) *E.L.* ; Burnley district (A.E.W.).

*Eucosma brunniichiana*, Frol. Common and generally distributed.

*Eucosma pflugiana*, Haw. Locally common among thistles.

*Eucosma cirsiana*, Zell. Meyrick treats this species as a variation of the preceding but there is good reason to believe that it is a good species. Vide, Pierce, *Gen. of British Tort.*

**Lanc.**—Grange (J.H.T.) ; Longridge (J.B.H.) *E.L.* ; Formby and Silverdale (W.M.) ; Grange and Burnley (A.E.W.).

**Ches.**—Marple and nr. Castle Mill (J.C.) *E.L.*

*Eucosma trigeminana*, Steph. Common, especially on the sandhills.

*Eucosma obscurana*, Steph. (*ravulana*, H-S). Once only at Simonswood Moss, Lancs. 18.VI.09 (W.M.).

*Eucosma tripunctana*, Fab. Common throughout.

*Eucosma subocellana*, Don. Local and infrequent.

**Lanc.**—Chat Moss (J.C.) ; Liverpool district (C.S.G.) ; Preston (J.B.H.) *E.L.* ; Lancaster (C.H.F.) ; Holker (W.M.) ; Grange and Burnley (A.E.W.).

**Ches.**—Wirral (J.F.B.) *E.L.* ; Rostherne (A.W.B.) ; Wallasey (W.A.T.).

**West.**—Witherslack (W.M.).

*Eucosma penkleriana*, Fisch v. Roesl. Among alders. Common in N. Lancs. and very variable.

**Lanc.**—Preston (J.B.H., J.H.T.) *E.L.* ; Grange, Silverdale, Humphrey Head and Cark c. (A.E.W., W.M.) ; Burnley (W.G.C.) ; Sales Wood (W.M.) ; Lancaster (C.H.F.).

**Ches.**—Knutsford (J.C.) ; nr. Birkenhead (C.S.G.) *E.L.* Rostherne and Chester (A.W.B.).

**West.**—Witherslack c. (W.M.) ; Arnside (C.H.F.).

**Eucosma ramella**, L. (*pakulliana*, Wilk.). Common throughout among birch, the var. *costana* equally frequent.

**Eucosma bilunana**, Haw. Also a common species among birch.

**Eucosma nisella**, Clerck. Local.

**Lanc.**—Preston (J.B.H.) *E.L.*; Formby, locally abundant (W.M.); Crosby, sc. (W.M.); Holker (Hop.).

**Ches.**—Puddington, sc. (J.F.B.); Hooton and Spital (C.S.G.) *E.L.*

**West.**—Witherslack (A.E.W.).

**Eucosma cinerana**, Haw. Meyrick treats this as a synonym of *nisella* but F. N. Pierce (*Genitalia Brit. Torts.*) considers it distinct.

**Lanc.**—Recorded only from Preston (J.B.H.) *E.L.*

**Eucosma tetraquetana**, Haw. Common among birch throughout and variable.

**Eucosma immundana**, Fisch v. Roesl. Common among alder.

**Eucosma nigricana**, H-S. Only once recorded viz. Delamere Forest, Ches. (W.M.).

**Eucosma proximana**, H-S. Once only, viz. Windermere (J.B.H.) *E.L.*

**Eucosma taedella**, Clerck. Local and infrequent.

**Lanc.**—Croxteth Park, nr. Liverpool (C.S.G.); Grange (J.H.T.); Windermere (J.B.H.) *E.L.*; Grange and Burnley (A.E.W.).

**Ches.**—Bidston and Puddington (J.F.B.); Knutsford (J.C.) *E.L.*

**West.**—Witherslack (W.M.); Arnside (A.E.W.).

**Eucosma similana**, Hub. Common throughout among birch.

**Eucosma ophthalmicana**, Hub. Scarce and local.

**Lanc.**—Chat Moss (J.C.); Longridge (J.H.T.); nr. Ribchester (J.B.H.) *E.L.*

**Ches.**—Tranmere and Rockferry (J.F.B.) *E.L.*

**Eucosma solandriana**, L. Abundant among birch everywhere, and variable. The type is scarce with us.

**Eucosma sinuana**, Hub. Meyrick treats this as a var. of the preceding but there is ample evidence that it is a good species. Delamere Forest is our only locality. Common and variable (W.M.).

**Eucosma semifuscana**, Steph. Common and variable; the typical form is rare in our Counties; var. *piceana*, Wilk. is common.

**Eucosma sordidana** Hub. Local.

**Lanc.**—Longridge (J.B.H.) *E.L.*; Formby, c. (W.M.); Southport (W.G.C.); Burnley (A.E.W.).

**Ches.**—Knutsford (J.C.); Wallasey (C.S.G.) *E.L.*; Delamere (W.M.).

#### LATHRONYMPHA, Mey.

**Lathronympha hypericana**, Hub. Local.

**Lanc.**—Grange and Whitewell, *E.L.*; Grange, c. (A.E.W.); Humphrey Head and Silverdale (W.M.).

**Ches.**—Castle Mill (J.C.); Flaybrick Hill (C.S.G.); nr. Seacombe (J.F.B.) *E.L.*; Eastham (W.M.); Delamere Forest (F.N.P.).

**West.**—Witherslack and Arnside (W.M.).

#### BACTRA, Steph.

**Bactra lanceolana**, Hub. An abundant species among rushes. At Witherslack and in Delamere Forest a small race is locally common.

**Bactra furfurana**, Haw. Very local but common in its localities.

**Lanc.**—Formby, c. (W.M.).

**Ches.**—Bidston Marsh (J.F.B.); nr. Liscard (C.S.G., J.W.E.) *E.L.*

#### POLYCHROSIS, Rag.

**Polychrosis littoralis**, Curt. Local on salt marshes.

**Lanc.**—Fylde district (J.H.T.); Preston and banks of Wyre (J.B.G.) *E.L.*, Southport (W.M.).

**Ches.**—Puddington marsh (J.F.B.); Wallasey (J.C.) *E.L.*

#### LOBESIA, Guen.

**Lobesia permixtana**, Hub. Not common.

**Lanc.**—Grange and Windermere (J.B.H.) *E.L.*

**Ches.**—Delamere (W.M.).

**West.**—Witherslack (W.M., A.E.W.).

## ENDOTHENIA, Hein.

**Endothenia oblongana**, Haw. Rare. There are no new records.  
**Lanc.**—Simonswood Moss (C.S.G.) ; Windermere (J.B.H.) E.L.  
**Ches.**—Knutsford (J.C.) E.L.

**Endothenia sellana**, Hub. Rare. Only recorded from Windermere (J.B.H.) E.L.

**Endothenia nigricostana**, Haw. Also a rare species. Recorded from Windermere (J.B.H.) E.L. and the Upton Valley, Wirral, one in 1919 (W.A.T.).

**Endothenia ericetana**, West. Rare. Recorded only from Lanc.—Formby (W.M.) ; Grange (A.E.W.).

**Endothenia antiquana**, Hub. Scarce and local.

**Lanc.**—Preston (J.B.H., J.H.T.) E.L. ; Grange (A.E.W.).  
**Ches.**—Bidston Marsh (C.S.G.) ; Wirral, n. c. (J.F.B.) E.L.

## ARGYROPOLOCE, Hub.

**Argyroploce salicella**, L. Scarce.

**Lanc.**—Nr. Huyton (C.S.G.) ; Penwortham, nr. Preston (J.B.H.) ; Preston (J.H.T.) E.L.

**Ches.**—Patrick Wood, Bromborough (J.F.B.) ; Woolden Hall, Glazebrook (J.C.) E.L. ; Mere, one in 1912 (A.W.B.).

**Argyroploce semifasciana**, Haw. Scarce.

**Lanc.**—Fleetwood (J.B.H.) ; Crosby (C.S.G.) E.L. ; Birkdale, one in 1934 (W.G.C.).

**Argyroploce hartmanniana**, L. (*scriptana*, Hub.). Only taken once, near the Ferry Hotel, Windermere (J.B.H.) E.L.

**Argyroploce corticana**, Hub. Generally common among birch in both Counties.

**Argyroploce betuletana**, Haw. Also common with the preceding species.

**Argyroploce sororculana**, Zell. Not common.

**Lanc.**—Grange and Silverdale (J.H.T.) ; Preston (J.B.H.) E.L. ; Lancaster (C.J.F.) ; Hale Bank (W.A.T.).

**Ches.**—Bidston (J.F.B.) ; Cheadle Hulme (H.H.C.) E.L. Delamere (W.M.).

**West.**—Witherslack (W.M., W.G.C.).

**Argyroploce variegana**, Hub. Abundant throughout.

**Argyroploce ochroleucana**, Hüb. Scarce, there are no records since 1889.

**Lanc.**—Irlam, nr. Manchester (J.C.) ; Liverpool dist. (C.S.G.) ; Preston (J.B.H., J.H.T.) E.L.

**Ches.**—Wirral (J.F.B.) E.L.

**Argyroploce pruniana**, Hüb. Common everywhere E.L. This does not appear to be the case now.

**Lanc.**—Grange (A.E.W.) ; Silverdale (W.M.).

**Ches.**—Upton Valley, Wirral (W.A.T.) ; Eastham (W.M.).

**West.**—Arnside, c. (W.M.).

**Argyroploce sauciana**, Hüb. Local but common on the moors.

**Lanc.**—Longridge and nr. Ribchester (J.B.H.) E.L. Burnley dist. (W.G.C.) ; Bolton dist. (A.R.).

**Ches.**—Delamere, f. c. (W.M.).

**Argyroploce dimidiata**, Sodof. Common on the Mosses, especially in Lancashire.

**Argyroploce penthinana**, Guen. (*postremana*, Zell.) Formerly taken at Windermere by the old Lancashire naturalists in good numbers ; it has not been recorded since the Ellis List in 1889.

**Argyroploce mygindana**, Schiff. There are no new records.

**Lanc.**—Chat Moss (J.B.H.) E.L.

**Ches.**—Staley brushes (J.C., J.B.H.) E.L.

**Argyroploce rufana**, Scop. Very local.

**Lanc.**—Grange (J.B.H.) E.L. Cark (W.M.) ; Silverdale (W.G.C.).

**West.**—Witherslack (A.E.W., W.M.).

**Argyroploce striana**, Schiff. Occasional but fairly well distributed.

**Lanc.**—Near W. Derby (C.S.G.) ; Preston and Wyreside (J.H.T.) E.L. Crosby (W.M.) ; Cark and Silverdale (W.M.) ; Grange and Holker (A.E.W.).

**Ches.**—Bidston Marsh and Claughton (J.F.B.) E.L.

*Argyroploce arcuella*, Clerck. Recorded only from Windermere (J.B.H.) and Hooton, Ches. (C.S.G.) E.L.

*Argyroploce rivulana*, Scop. Not common.

Lanc.—Hale Marsh, abund. (C.S.G.); Lytham, Longridge etc. (J.B.H.); Preston (J.H.T.) E.L. Grange (A.E.W.); Lancaster (C.H.F.).

Ches.—Bramall (H.H.C.); Knutsford (J.C.); Wallasey (C.S.G.) E.L.

West.—Witherslack, one in 1932 (W.M.).

*Argyroploce schulziana*, Fab. Local but common on the mosses.

Lanc.—Chat Moss, Pilling Moss, Silverdale and Simonswood Moss E.L. Burnley Moors c. (W.M., A.E.W.); Holker Moss (*id.*).

Ches.—Knutsford and Rudd Heath (J.C.) E.L. Delamere, c. (W.M.).

West.—Witherslack, c. (A.E.W., W.M.).

*Argyroploce palustrana*, Zell. Occasional only.

Lanc.—Humphrey Head (A.E.W.); Burnley (W.G.C.).

*Argyroploce micana*, Fröl. Recorded only from Pilling Moss, Lanc. (J.B.H., J.H.T.). E.L.

*Argyroploce lacunana*, Dup. Abundant everywhere.

*Argyroploce cespitana*, Hüb. Locally common.

Lanc.—Grange (J.B.H.); Preston (J.H.T.) E.L. Crosby and Formby (W.M.); Cark, abund. (W.M., W.G.C.).

Ches.—Knutsford (J.C.); Wallasey (J.F.B. etc.) E.L. do. abundant (W.M.).

West.—Witherslack (W.M.).

*Argyroploce urticana*, Hub. An abundant and general species.

*Argyroploce bifasciana*, Haw. Local and not common among pines.

Lanc.—Chat Moss (J.C.); Grange (J.B.H.) E.L. Formby (W.M.); Grange and Holker (A.E.W.); Simonswood (W.A.T.).

Ches.—Hoylake (C.S.G.) E.L. Delamere (W.M., F.N.P.).

*Argyroploce profundana*, Fab. Scarce.

Lanc.—Hoghton (J.H.T.) E.L. Holker Moss (A.E.W.); Silverdale (W.M.).

West.—Arnside (W.M.).

### HEMIMENE, Hüb.

*Hemimene petiverella*, L. Common and widely distributed.

*Hemimene alpinana*, Treit. Not common.

Lanc.—Grange (J.H.T.) E.L. Grange and Cark (A.E.W.); Silverdale (W.M.).

Ches.—Near Rockferry (C.S.G.) E.L.

West.—Witherslack (W.M.).

*Hemimene questionana*, Zell. (*politana*, Guen.)

Ches.—Wallasey a series in 1908 (W.M.).

*Hemimene plumbagana*, Treit. Very scarce.

Lanc.—Grange and Preston (J.B.H., J.H.T.) E.L. Formby, two in 1929 (W.M.).

Ches.—Bidston Marsh (C.S.G.); near Manchester (Stainton's Manual, ii, 215).

*Hemimene simpliciana*, Haw. Not uncommon.

Lanc.—Croxeth Park, nr. Liverpool (C.S.G.) E.L. Wavertree, Liverpool (W.M.); Simonswood (W.M.); Sales Wood, Prescot (W.M.); Grange and Burnley (A.E.W.).

Ches.—Bowdon (A.W.B.).

*Hemimene tanaceti*, Stt. (*herbosana*, Barr.) Scarce.

Lanc.—Silverdale; Holker; Cark; Formby; Hale Wood; Simonswood Moss (W.M.).

West.—Witherslack.

*Hemimene acuminatana*, Zell. Not uncommon but probably overlooked.

Lanc.—Grange (J.B.H., J.H.T.) E.L. Crosby, Formby, Ainsdale and Silverdale (W.M.).

Ches.—Eastham (W.A.T.).

West.—Witherslack (W.M.).

*Hemimene consortana*, Wilk. Fairly common among ox-eye daisy.

Lanc.—Grange (J.B.H., J.H.T.); near Manchester (Stainton's Manual, ii, 214) E.L. Preston (J.B.H.).

West.—Witherslack, c. (W.M.).

**Hemimene plumbana**, Scop. (*ulicana*, Wilk.) A fairly common moth.

**Lanc.**—Grange (J.B.H., J.H.T.) E.L. Silverdale, Cark, Formby and Liverpool dist. (W.M.).

**Ches.**—Northwich (A.W.B.).

**West.**—Witherslack (W.M.).

**Hemimene æratana**, Pierce. Local but fairly common.

**Lanc.**—Silverdale (A.E.W., W.M.); Cark, Crosby and Formby (W.M.).

**Hemimene saturnana**, Guen. Scarce. Only recorded from Lancaster (C.H.F.).

NOTE.—Several species of this genus very closely resemble each other; most of the insects here recorded, since the Ellis List, have been checked by Mr. F. N. Pierce who has examined the genitalia for the purpose.

#### PAMMENE, Hüb.

**Pammene nitidana**, Fab. Recorded only from the Preston dist. (J.B.H., J.H.T.) E.L.

**Pammene splendidula**, Guen. Not common.

**Lanc.**—Preston (J.B.H.) E.L.

**Ches.**—Bidston, sc. (C.S.G.); Bromborough (J.W.E.); Cheadle Hulme (H.H.C.); Dunham Park (J.C.) E.L. Delamere (W.M.); Wallasey (C.B.W.); Eastham (W.A.T.).

**Pammene fimbriana**, Haw. Very scarce now.

**Ches.**—Cheadle dist. c. (H.H.C.); Staley Brushes and Dunham Park (J.C.) E.L. Delamere, one in 1907 (W.M.).

**Pammene argyrana**, Hüb. Common in old oak woods and generally distributed.

**Pammene juliana**, Curt. Very scarce.

**Lanc.**—Withington (J.C.); Silverdale (J.B.H.) E.L. Kirkby, one in the Old Rough Wood, 1917 (W.M.).

**Ches.**—Dunham Park (A.W.B.).

**Pammene rhediella**, Clerck. Rare.

**Lanc.**—Cleveleys (J.H.T.); Preston (J.B.H.); Old Swan, Liverpool (C.S.G.) E.L. Lancaster (C.H.F.); Grange (A.E.W.); Silverdale (W.M.).

**Ches.**—Bromborough (J.W.E.); Oxton and Upton (C.S.G.); Prenton (J.F.B.) E.L. Delamere (F.N.P.); Prenton, in 1919 (W.A.T.).

**Pammene populana**, Fab. Abundant on the coast sandhills, not noted elsewhere.

**Pammene regiana**, Zell. Generally distributed but not common.

**Lanc.**—Manchester dist. (J.C.); Windermere (J.B.H.) E.L. Childwall, nr. Liverpool and Formby (W.M.); Crosby (L.W.G.); Huyton (J. Cot.); Southport (Sopp); Boggart Hole Clough, nr. Manchester (A.W.B.); Lancaster (C.H.F.).

**Ches.**—Between Poulton and Seacombe (J.F.B.) E.L. Wallasey (C.B.W.).

#### LASPEYRESIA, Hüb.

**Laspeyresia roseticolana**, Zell. (*germarana*, Wilk.) There is no record since the Ellis List in 1889.

**Lanc.**—Cleveleys (J.H.T.); Wyre dist. (J.B.H.) E.L.

**Ches.**—Tranmere, nr. Birkenhead (J.F.B., C.S.G.) E.L.

**Laspeyresia funebrana**, Treits.. Recorded only from Preston by Mr. Hodgkinson. E.L.

**Laspeyresia woerberiana**, Schiff. Local on fruit trees.

**Lanc.**—Old Swan, Liverpool (C.S.G.) E.L. Grange, on cherry (A.E.W.); Formby, in garden (W.M.).

**Ches.**—Oxton, Birkenhead, c. on an old pear tree (L. Cox).

**Laspeyresia ianthinana**, Dup. Local.

**Lanc.**—Near Fleetwood and Grange (J.B.H.) E.L. Formby, one bred (W.M.); Grange (A.E.W.).

**Ches.**—Wallasey (C.S.G.) E.L. do. one in 1919 (W.A.T.); Delamere (F.N.P.).

**Laspeyresia rufillana**, Wilk. Banks of the Wyre, near Fleetwood (J.B.H., J.H.T.) E.L. is our only locality.

**Laspeyresia aurana**, Fab. There are no recent records.

**Lanc.**—Aegcroft and Withington (J.C.) ; Preston and Cleveleys (J.H.T.) ; Grange (J.B.H.) E.L.

**Laspeyresia pomonella**, L. A common pest on apples.

**Lanc.**—Manchester (J.C.) ; Preston (J.B.H.) ; Silverdale (J.H.T.) E.L. Liverpool and Formby (W.M.) ; Bolton (A.R.).

**Ches.**—Wallasey (Laverock).

**Laspeyresia splendana**, Hüb. Local in oak woods.

**Lanc.**—Childwall, nr. Liverpool (W.M.).

**Ches.**—Dunham Park (J.C.) ; Eastham (J.F.B., J.W.E.) E.L. do., a series bred (W.M.).

**Laspeyresia ulicetana**, Haw. Abundant among gorse everywhere.

**Laspeyresia perlepidana**, Haw. Once only, near Hooton, Ches. (C.S.G.) E.L. Lancaster (C.H.F.) ; Grange, c. (A.E.W.).

**Laspeyresia compositella**, Fab. Recorded only from Eastham Wood, Ches. (C.S.G.) E.L.

**Laspeyresia nigricana**, Steph. (*pisana*, Guen.). Scarce.

**Lanc.**—Wyre dist. among peas (J.B.H.) E.L. Silverdale (C.B.W.) ; Ainsdale (W.M.).

**Ches.**—Delamere (W.M.) ; Wallasey (C.B.W.).

**Laspeyresia scopariana**, H-S. Very local.

**Lanc.**—Longridge and nr. Ribchester (J.B.H.) E.L.

**Laspeyresia cosmophorana**, Treit. Scarce and local.

**Lanc.**—Grange (J.B.H.) ; Holker (A.E.W.) ; Silverdale (W.M.).

**West.**—Witherslack (A.E.W.).

**Laspeyresia coniferana**, Ratz. Generally common among pines.

**Lanc.**—Chat Moss (R.S.E.) ; Salwick, nr. Preston (J.B.H.) E.L. Simonswood Moss, Formby and Holker (W.M.).

**West.**—Witherslack (A.E.W.).

#### TINEINA.

##### Fam. GELECHIADÆ.

##### METZNERIA, Zell.

**Metzneria littorella**, Doug. Recorded in the Ellis List from Wallasey, but this was shewn to be an error (E. A. Banks, *E.M.M.*, XXXVII, pp. 121-4).

**Metzneria lapella**, L. Recorded by (J.F.B.) as abundant between Claybrick Hill and Claughton, and by (C.S.G.) as occurring near Hose Farm, Liscard and on the clay banks at Egremont. E.L.

**Metzneria metzneriella**, Stt. Scarce and local.

**Lanc.**—Grange and Longridge (J.B.H., J.H.T.) E.L. Cark, on Railway embankment (A.E.W.) ; Silverdale (W.M.).

#### PALTODORA, Mey.

**Paltodora cytisella**, Curt. Manchester (Stainton's Manual, II, 349) E.L.

#### SITOTROGA, Hein.

**Sitotroga cerealella**, Stt. Abundant in grain warehouses in Liverpool E.L. Specially so in 1917 (W.M.).

#### PSAMATHOCRITA, Mey.

**Psamathocrita osseella**, Stt. Grange, (J.B.H., J.H.T.) E.L.

#### ARISTOTELIA, Hub.

**Aristotelia inopella**, Zell. Cleveleys, Lanc. (J.H.T.) E.L.

**Aristotelia atrella**, Haw. Very scarce.

**Lanc.**—Grange (J.H.T.) ; Lytham (J.B.H.) E.L.

**West.**—Witherslack, 1 in 1917 (W.M.).

**Aristotelia unicolorella**, Dup. var. *immaculatella*, Doug. Scarce.

**Lanc.**—Wardless (J.H.T.) E.L. Silverdale and Woodvale near Formby (W.M.).

**Aristotelia tenebrella**, Hub. Local.

**Lanc.**—Farington (J.H.T.) ; Liverpool (C.S.G.) ; Lytham (J.B.H.) E.L. Simonswood Moss and Formby (W.M.) ; Bowring Park, nr. Liverpool (W.A.T.).

**Ches.**—Cheadle Hulme, c. (H.H.C.) ; Oxton (J.F.B.) E.L.

**Aristotelia lucidella**, Steph. Very local.

**Lanc.**—Pits nr. Tuebrook, Liverpool (C.S.G.) E.L. Sefton Park, Liverpool, one at e. l. in 1906 (W.M.).

**Ches.**—Liscard (C.S.G.) E.L.

**Aristotelia ericinella, Dup.** Fairly common on heaths and mosses.  
**Lanc.**—Chat Moss (J.C.); Grange and Farington (J.H.T.); Liverpool dist. (C.S.G.) *E.L.* Holker Moss, c. (W.M.).  
**Ches.**—Oxton Heath, nr. Birkenhead (C.S.G.) *E.L.* Delamere (W.M.); Thurstanston (W.A.T.).  
**West.**—Witherslack Moss, c. (W.M.).

**Aristotelia pictella, Zell.** Taken by Mr. Gregson near the mouth of the Alt at Hightown. *E.L.*

**Aristotelia hermanella, Fab.** Local on Chenopodium.

**Lanc.**—Lytham (J.B.H., J.H.T.) *E.L.* Crosby, in 1915 (W.M.).  
**Ches.**—Wallasey, Tranmere and Oxton (J.F.B.) *E.L.*

**Aristotelia stipella, Zell.** Scarce, we have no new records.

**Lanc.**—Grange (J.H.T.); Stanley, nr. Liverpool (C.S.G.); Manchester (Stainton's Manual, II, 345.) *E.L.*  
**Ches.**—Prenton, nr. Birkenhead (C.S.G.) *E.L.*

#### STENOLECHIA, Mey.

**Stenolechia gemella, L. (*nivea*, Haw.).** Not uncommon on oak.

**Lanc.**—Grange (J.H.T.) *E.L.* Sales Wood, nr. Prescot, c. (W.M.); Woolton Wood (W.M.).  
**Ches.**—Rockferry and Bidston (J.F.B.) *E.L.* Eastham f. c. (W.A.T.); Delamere (W.M.).

#### EXOTELIA, Wall.

**Exotelia dodecella, L.** Frequent but hardly common among pines.

**Lanc.**—Chat Moss (J.C.); Grange (J.H.T.); Liverpool dist. (C.S.G.) *E.L.* Simonswood Moss and Formby (W.M.).  
**Ches.**—Bidston and Claughton (J.F.B.); Lindow Common (J.C.) *E.L.* Delamere (W.M.); Storeton (W.A.T.).  
**West.**—Witherslack Moss (W.M.).

#### EPITHECTIS, Mey.

**Epitheatis mouffetella, Schiff.** Scarce and local.

**Lanc.**—Cleveleys (J.H.T.) *E.L.*  
**Ches.**—Withington and Glazebrook (J.C.); Tranmere (J.F.B.) *E.L.* Eastham, in 1918 (W.A.T.).

#### TELPHUSA, Chamb.

**Telphusa æthiops, West.** We have no records since 1889.

**Lanc.**—Chat Moss (J.C.); Lanc. mosses where burnt (C.S.G.); Longridge (J.H.T.) *E.L.*  
**Ches.**—Prenton, nr. Birkenhead (J.F.B.) *E.L.*

**Telphusa humeralis, Zell.** Rare.

**Lanc.**—Grange (J.B.H.) *E.L.* Grange in 1920 (A.E.W.).  
**Ches.**—Bowdon, one in 1912 (A.W.B.).

**Telphusa notatella, Hub.** Scarce and local.

**Lanc.**—Manchester (Stainton's Manual, II, 335); Preston (J.H.T.); Windermere (J.B.H.) *E.L.*  
**Ches.**—Wirral, occ. (J.F.B.) *E.L.* Chester (W.A.T.).

**Telphusa proximella, Hub.** Abundant throughout among birch.

**Telphusa fugitivella, Zell.** Very scarce.

**Lanc.**—Croxteth, nr. Liverpool (C.S.G.) *E.L.*  
**Ches.**—Delamere (W.M.).  
**West.**—Witherslack, in 1918 (W.M.).

**Telphusa vulgella, Hub.** Fairly common but local.

**Lanc.**—Irlam (J.C.); Preston (J.B.H.) *E.L.* Liverpool dist., Wavertree and Childwall (W.M.); Formby (W.M.).  
**Ches.**—Wirral, c. (J.F.B., C.S.G.) *E.L.* Wallasey, f. c. (Bell); Dunham Massey (A.W.B.).  
**West.**—Witherslack (W.M.).

**Telphusa triparella, Zell.** We have no new records for this species.

**Lanc.**—Grange (J.H.T.); Lancashire Mosses (C.S.G.); Manchester dist. (Stainton's Manual, II, 342). *E.L.*

**Telphusa luculella, Hub.** Local and not common.

**Lanc.**—Levenshulme (H.H.C.); Preston (J.H.T.) *E.L.* Withington (J.C.); Holker (A.E.W.).  
**Ches.**—Bramhall (H.H.C.); Dunham Park (J.C.) *E.L.* Delamere (W.M., F.N.P.); Dunham Massey and Rostherne (A.W.B.); Eastham (W.A.T.).

**Telphusa sequax, Haw.** Very local.

**Lanc.**—Grange (J.H.T.) *E.L.*  
**West.**—Witherslack (A.E.W., W.M.); Arnside (W.M.).

## GELECHIA, Hub.

**Gelechia domestica**, Haw. Local but fairly common.

**Lanc.**—Churchtown, nr. Southport (J.B.H.); Liverpool (C.S.G.); E.L. Grange, c. (A.E.W.); Formby, c. (W.M.).

**Ches.**—Bowdon (J.C.); Wirral (J.F.B.). E.L.

**Gelechia umbrosella**, Zell. Common on the sandhills.

**Lanc.**—Lytham (J.H.T., J.B.H.) E.L. Formby and Crosby, c. (W.A.T., W.M.).

**Ches.**—Wallasey and Delamere (W.M.).

**Gelechia affinis**, Haw. Rare.

**Lanc.**—Lytham (J.B.H.); Preston (J.H.T.) E.L.

**Ches.**—Wallasey sandhills (J.F.B., C.S.G.) E.L.

**Gelechia mundella**, Doug. Occasional on the sandhills.

**Lanc.**—Lytham (J.B.H., J.H.T.) E.L. Formby (W.M.).

**Ches.**—Wallasey (J.F.B., C.S.G.) E.L.

**Gelechia senectella**, Zell. Generally distributed, common on the sandhills.

**Gelechia obscurella**, Hein. Meyrick regards this as a form of *senectella* but as in other cases his view is not generally accepted. First taken in Britain by Mr. Hodgkinson near Windermere College (*Entom.* XXIII, 91).

**Gelechia desertella**, Doug. Common on the sandhills.

**Gelechia politella**, Stt. Not common.

**Lanc.**—Formby (W.M.).

**Ches.**—Wallasey (J.F.B.) E.L. Wallasey in 1916 (W.M.).

**Gelechia terrella**, Hub. Abundant everywhere.

**Gelechia diffinis**, Haw. Ellis says "Common on moors and mosses" but we have only two records since 1889 viz.:—Boggart Hole Clough, Manchester (A.W.B.) and Newchurch Common, Ches. (W.M.).

**Gelechia mulinella**, Zell. Common and generally distributed.

**Gelechia logicornis**, Curt. Common on moors and mosses in both counties.

**Gelechia ericotella**, Hub. Abundant among heather.

**Gelechia velocella**, Dup. There are no recent records.

**Lanc.**—Manchester (Stainton's Manual, II, 331). E.L.

**Ches.**—Wallasey sandhills (J.F.B.) E.L.

**Gelechia rhombella**, Schiff. Also a rare species.

**Lanc.**—Cheetham Hill (R.S.E.); Grange (J.H.T., J.B.H.); Irlam (J.C.). E.L.

**Gelechia fumatella**, Doug. On the sandhills between Wallasey and Leasowe (C.S.G.) E.L.

**Gelechia celerella**, Stt. Meyrick considers this to be only a variation of the preceding species. It is evidently scarce. Cheshire sandhills (Stainton's Manual, II, 332), and Leasowe (C.S.G.) E.L.

**Gelechia distinctella**, Zell. Scarce on sandhills.

**Lanc.**—Lytham (J.B.H., J.H.T.) E.L. Formby in 1921 (W.M.).

**Ches.**—Wallasey (J.F.B., C.S.G.) E.L. Do. (W.M.); Storeton (W.A.T.).

**Gelechia sororculella**, Hub. Locally common.

**Lanc.**—Lytham, Manchester and Preston, E.L. Burnley (W.G.C.); Simonswood Moss, Knowsley Park, Crosby and Formby (W.M.).

**Ches.**—Wallasey (J.F.B., C.S.G.) E.L. Do. common (W.M.).

**Gelechia peliella**, Treit. We have only one very old record, viz. Manchester (Stainton's Manual, II, 332) E.L.

**Gelechia lentiginosella**, Zell. There are no new records since the Ellis list.

**Lanc.**—Near Stoneyhurst (J.B.H.), Samlesbury, nr. Preston (J.H.T.).

**Ches.**—Bidston Marsh (C.S.G.).

## PLATYEDRA, Mey.

**Platyedra malvella**, Hub. Scarce.

**Lanc.**—(Stainton's Manual, II, 330) E.L. Grange (A.E.W.).

## PHTHORIMÆA, Mey.

*Phthorimæa plantaginella*, Stt.

**Lanc.**—Banks of River Wyre (E.M.M., 1882, 251).

*Phthorimæa ocellatella*, Hering. Our only record is Fleetwood (J.B.H.) E.L.

*Phthorimæa instabilella*, Doug.

**Lanc.**—Fleetwood and Humphrey Head (J.B.H.); Wardless (J.H.T.) E.L. Cark (A.E.W.).

*Phthorimæa atriplicella*, F.v.R.

**Lanc.**—Fleetwood (J.B.H.) E.L. Formby, one in 1922 (W.M.).

*Phthorimæa costella*, Westw. Casual only.

**Lanc.**—Olive Mount, Liverpool, one (C.S.G.) E.L. Formby, in 1921 (W.A.T.).

*Phthorimæa artemisiella*, Treit. Abundant on the coast sandhills E.L.

**Lanc.**—Grange (A.E.W.).

**Ches.**—Wallasey (W.M.).

**West.**—Arnside and Witherslack (W.M.).

*Phthorimæa acuminella*, Sirc.

**Lanc.**—Lytham (J.B.H.) E.L. Silverdale (C.B.W.); Cark (W.M.); Formby (*id.*)

**Ches.**—Wallasey (C.B.W.).

*Phthorimæa hubneri*, Haw. Recorded only from the Manchester district (Stainton's Manual, II, 339); Irlam and Glazebrook (J.C.) E.L.

*Phthorimæa maculea*, Haw. There are no new records.

**Lanc.**—Lytham (J.B.H.); Pilling Moss (*id.*). Preston (J.H.T.) E.L.

**Ches.**—Flixton and Carrington Mosses (J.C.); Wirral (C.S.G.) E.L.

*Phthorimæa fraternella*, Doug.

**Lanc.**—Fylde dist. (J.H.T.); Pilling Moss (J.B.H.); Preston (J.B.H., J.H.T.); Withington (J.C.) E.L.

**Ches.**—Prenton (C.S.G.) E.L.

**Variation.**—Mr. Hodgkinson described as a new species (*Ent. Rec.* IX, 36) under the name *intermediella* a pale form of this moth (Bankes, *Ent. Rec.* XVIII, 46).

*Phthorimæa viscaricella*, Stt. Recorded only from the Lancashire coast at Cleveleys (J.H.T.) and Fleetwood (J.B.H.) E.L.

*Phthorimæa tricolorella*, Haw. Local and not common.

**Lanc.**—Manchester (Stainton's Manual, II, 338); Preston (J.B.H., J.H.T.) E.L.

**Ches.**—Dunham Park, r. (R.S.E.); Eastham (J.F.B.); Wirral (C.S.G.) E.L.

*Phthorimæa maculiferella*, Doug. Local.

**Lanc.**—Lytham (J.B.H.); Preston (*id.*) E.L. Swinton (Stott).

**Ches.**—Wallasey (J.F.B.) E.L. Delamere Forest and Wallasey, sc. (W.M.).

*Phthorimæa semidecandrella*, Threl. Very local.

**Lanc.**—Lytham (J.B.H., J.H.T.) E.L.

*Phthorimæa junctella*, Doug. Not uncommon on the sandhills.

**Lanc.**—Manchester (Stainton's Manual, II, 339) E.L. Formby and Ainsdale (W.M., W.A.T.).

**Ches.**—Wallasey (W.M.); Thurstanston (W.A.T.).

**West.**—Witherslack (W.M.).

*Phthorimæa marmorea*, Haw. Abundant on the sandhills as at Formby and Wallasey (W.M.). Very variable.

*Phthorimæa leucomelanella*, Zell. We have only one record, viz. Rostherne, Ches. in 1913 (A.W.B.).

## SOPHRONIA, Hub.

*Sophronia semicostella*, Hub. Very scarce.

**Lanc.**—Manchester dist. (Stainton's Manual, II, 351) E.L.

**Ches.**—Dunham Park (J.C.); Jackson's Wood, Claughton (C.S.G.) E.L. Dunham Park in 1911 (A.W.B.). Delamere, one in 1908 (W.M.).

## STOMOPTERYX, Hein.

**Stomopteryx anthyllidella, Hub.** Locally common on the sandhills.

**Stomopteryx vorticella, Scop. (ligulella, Zell.)** Not common.

Lanc.—Lytham (J.B.H.); Preston (J.H.T.); E.L. Crosby (W.M.).

Ches.—New Brighton (C.S.G.) E.L. Wallasey (C.B.W.).

**Stomopteryx tæniarella, Zell. (sircimella, Stt.)**

Lanc.—Grange (J.H.T.); Lytham (J.B.H.); Manchester (Stainton's Manual, II, 343); Preston (J.H.T.) E.L. Cark, f. c. (A.E.W.); Formby (W.M., W.A.T.).

Ches.—Wallasey (J.F.B.); Crewe (Stainton's Manual, II, 343) E.L.

West.—Witherslack (W.M.).

## CAMPSOLECHIA, Mey.

**Campsolechia temerella, Zell.** Common on the Lancashire sandhills.

Lanc.—Lytham and Crosby E.L. Crosby, Formby and Ainsdale (W.M.); Lancaster (C.H.F.); Burnley (A.E.W.).

Ches.—Wallasey (E.L.).

## ANACAMPSIS, Curt.

**Anacampsis populella, Clerck.** Abundant throughout.

## ACOMPSIA, Hub.

**Acompsia cinerella, Clerck.** Scarce and local.

Lanc.—Grange (J.H.T.); Lytham (J.B.H.); Stretford (J.C.) E.L. Grange in 1922 (A.E.W.).

Ches.—On the roadside between Poulton and Wallasey (C.S.G.); Wallasey sandhills (J.F.B.) E.L.

## ANARSIA, Zell.

**Anarsia spartiella, Schrank.** Among broom and gorse but not common.

Lanc.—Preston (J.H.T.) E.L. Hale, nr. Liverpool (W.M.); Formby (*Id.*).

Ches.—Bidston and Wallasey (J.F.B.) E.L. Wallasey and Delamere Forest (W.M.).

**Variation.**—The form *genistæ*, Stt. has been recorded from Morecambe (J.H.T.) and from Wallasey (W.M.).

## CHELARIA, Haw.

**Chelaria hubnerella, Don.** Common and general among birch.

## DICHOMERIS, Hub.

**Dichomeris marginella, Fab.** Among juniper in North Lancs. etc.

Lanc.—Grange (J.B.H.) E.L. and (A.E.W.).

West.—Witherslack and Arnside (A.E.W., W.M.).

## BRACHMIA, Hub.

**Brachmia gerzonella, Zell.** Our only record is Thurstanston, Ches. in 1920 (W.A.T.).

**Brachmia rufescens, Haw.** Scarce and local.

Lanc.—Coast near Liverpool (C.S.G., J.F.B.); Stretford (J.C.) E.L. Otterspool, nr. Liverpool (W.A.T.).

## Fam. COSMOPTERYGIDÆ.

## CHRYSOCLISTA, Stt.

**Chrysoclista rhamniella, Zell.** Recorded only from Grange (J.B.H., J.H.T.) and Silverdale (J.H.T.) E.L.

**Chrysoclista atra, Haw. (hellerella, Dup.).** Common throughout.

**Chrysoclista vinolentella, H-S.** Preston (J.B.H.) E.L. is our only record.

**Chrysoclista aurifrontella, Hub.** Common among whitethorn.

**Chrysoclista bimaculella, Haw.** Windermere (J.B.H.) E.L.

## MOMPHA, Hub.

**Mompha schrankella, Hub.** We have only the old records.

Lanc.—Brockholes, nr. Preston (J.B.H.); Pilling Moss (*Id.*); Liverpool dist. (C.S.G.); Salwick, nr. Preston (J.H.T.); Windermere (J.B.H.) E.L.

**Mompha raschiella, Zell.** Very rare. Grange, Lanc. (A.E.W.) and Rostherne, Ches. (A.W.B.) are our only records.

**Mompha propinquella, Stt.** Another rare species.

Lanc.—Pilling Moss (J.B.H.); Preston (J.B.H., J.H.T.) E.L. Grange, one in 1914 (W.M.).

Ches.—Prenton, nr. Birkenhead (C.S.G.) E.L.

**Mompha lacteella**, Steph. Very local.

**Lanc.**—Dutton nr. Ribchester (J.B.H.); Windermere (*Id.*); *E.L.* Grange, Yewbarrow, c. (A.E.W.).

**Ches.**—Tranmere, nr. Birkenhead (C.S.G.) *E.L.*

**Mompha decorella**, Steph. Only recorded from Grange (J.H.T.) *E.L.*

**Mompha fulvescens**, Haw. (*epilobiella*, Schrank). Locally common.

**Lanc.**—Speke and Formby (W.A.T., W.M.).

**Ches.**—Marston, nr. Northwich (A.W.B.).

**Mompha ochraceella** Curt. Another very local moth.

**Lanc.**—Preston (J.B.H.) *E.L.* Woodvale in 1922 (W.A.T.).

**Ches.**—Bidston Marsh (C.S.G.); Puddington (J.F.B.) *E.L.* Sealand, nr. Chester (W.A.T.).

**Mompha miscella**, Schiff. Scarce and local.

**Lanc.**—Grange (J.B.H., J.H.T.) *E.L.* Silverdale (W.M.).

**West.**—Witherslack, in 1915 (W.M.).

#### BATRACHEDRA, Stt.

**Batrachedra præangusta**, Haw. Common among aspen and poplar throughout.

#### Fam. BLASTOBASIDÆ.

##### BLASTOBASIS, Zell.

**Blastobasis lignea**, Wals. First noted as a British species by Mr. Albert E. Wright at Grange in 1918, it has since been found to be locally abundant in the Grange district and at Witherslack. For an account of this interesting insect see *Entom. LV*, (1922) 145.

##### AUXIMOBASIS, Wals.

**Auximobasis normalis**, Mey. A single example taken on the wall of the Liverpool docks is the only British record, July, 1921 (W.M.).

## CONTINUATION OF THE REVISED LEPIDOPTERA LIST

#### Fam. OECOPHORIDÆ

##### OECOPHORA, Latr.

**Oecophora geoffrella**, L. Very local and scarce.

**Lanc.**—Manchester (Stainton's Manual, ii, 353); a few specimens near the old mill dam at Garston (C.S.G.) *E.L.* Burnley, r. (W.G.C.).

**Ches.**—Puddington (J.F.B.).

##### DASYCERA, Steph.

**Dasydera sulphurella**, Fab. Abundant throughout.

**Variation.**—Dr. Ellis records having bred two specimens in which the yellow markings were replaced by bronze.

#### SCHIFFERMULLERIA, Hub.

**Schiffermulleria woodiella**, Curt. About fifty or sixty specimens of this species were taken by Robert Cribb, about 1840, in a rotten tree on Kersall Moor, near Manchester; all but three of these specimens (one in the Curtis coll. in Australia, and two in the Carter coll. at Owen's College, now the Manchester University) were accidentally destroyed, the insect has never been taken since either there or elsewhere. *E.L.*

**Schiffermulleria tripuncta**, Haw. Scarce and local.

**Lanc.**—Manchester (J.B.H., and Stainton's Manual, ii, 356); Preston (J.B.H.) *E.L.*

**Ches.**—Oxton, nr. Birkenhead (C.S.G.) *E.L.*

#### ENDROSIS, Hub.

**Endrosis lactella**, Schiff. An abundant species throughout.

#### AMPHISBATIS, Zell.

**Amphisbatis incongruella**, Stt. Not common.

**Ches.**—Staley Brushes (J.B.H.); Delamere (C.S.G.); Carrington Moss (R.S.E.) *E.L.* Delamere, two in different years (W.M.).

**West.**—Witherslack, one in 1919 (W.M.).

#### BORKHAUSENIA, Hub.

**Borkhausenia fuscescens**, Haw. Generally distributed and sometimes common.

**Borkhausenia similella, Hub. (stipella, Doub.).** Recorded only from Manchester dist. (J.B.H., and Stainton's Manual, ii, 356) and Disley (J.C.) E.L.

**Borkhausenia subaquilea, Stt.** Very local and scarce; noted only from Staley Brushes (J.B.H.) E.L., and Bidston (J.F.B., C.S.G.).

**Borkhausenia minutella, L.** Also a scarce and local species. Manchester dist. (J.B.H., and Stainton's Manual, ii, 356) E.L. Preston (J.B.H.).

**Borkhausenia tinctella, Hub.** Once only. Cheetham Hill, Lanc. (R.S.E. Zool. ii, 735) E.L.

**Borkhausenia flavifrontella, Hub.** Another scarce species in our counties.

Lanc.—Grange (J.B.H., J.H.T.); Windermere (J.B.H.) E.L. Grange (A.E.W.).

Ches.—Bidston, sc. (J.F.B.) E.L.

**Borkhausenia pseudospretella, Stt.** A common pest everywhere.

#### CHEIMOPHILA, Hub.

**Cheimophila salicella, Hub.** Rare. Usually occurring in single specimens only.

Lanc.—Manchester dist. (Stainton's Manual, ii, 283); Huyton (C.S.G.) E.L.

Ches.—Wallasey (W.M., W.A.T.); Storeton, 1920 (W.A.T.), do. several bred in 1920 (W.M.); nr. Bromborough Mill (C.S.G.).

West.—Witherslack (A.E.W., W.M.).

#### CHIMABACHE, Hub.

**Chimabache fagella, Fab.** Very common in woodlands throughout.

**Variation.**—In recent years this moth has gradually become darker, almost completely supplanting the grey type.

**Chimabache phryganella, Hub.** Fairly common in oak woods.

Lanc.—Grange (E.L.); Lancaster (C.H.F.); Lostock, nr. Bolton (Stott); Burnley (W.G.C.); Woolton Wood, Liverpool (W.M.).

Ches.—Delamere (J.B.H.); Dunham Park, Agecroft and Knutsford (J.C.); Eastham Wood (J.F.B.) E.L. Wallasey (Bell); Delamere (A.W.B.); Carrington Moss (G.W.).

#### PLEUROTA, Hub.

**Pleurota bicostella, Clerck.** Common on heaths and mosses.

#### CARCINA, Hub.

**Carcina quercana Fab.** Common and generally distributed.

#### EXÆRETIA, Stt.

**Exæretia allisella, Stt.** Local and scarce.

Liverpool dist. among *Artemisia* (C.S.G.) E.L. Southport, one in 1908 (W.G.C.).

Ches.—Stockport (J.C.); Wallasey (J.F.B.) E.L.

#### DEPRESSARIA, Haw.

**Depressaria discipunctella, H-S.** Only recorded from Grange (J.B.H.) E.L.

**Depressaria nervosa, Haw.** Local but fairly common.

Lanc.—Lytham (J.B.H.); Penwortham (J.H.T.) E.L. Crosby (W.M.); Sales Wood, nr. Prescot (F.N.P.); Cark (W.M.); Gathurst, nr. Wigan (Hop.).

Ches.—Wirral (E.L.); Eastham (W.A.T.).

**Depressaria chaerophylli, Zell.** Rare. We have no new records. Woolton, Lanc., and Prenton, Ches. (C.S.G.) E.L.

**Depressaria weirella, Stt.** Also a rarity with us.

Lanc.—Liverpool dist. (C.S.G.); Lytham and Pilling Moss (J.B.H.); Penwortham (J.H.T.) E.L.

**Depressaria heracleana, De Geer.** Abundant and well distributed.

**Depressaria pulcherrimella, Stt.** Rare in recent years.

Grange and Pilling Moss (J.B.H.); Preston (J.H.T.) E.L. Grange in 1922 (A.E.W.).

Ches.—Bidston and Leasowe (J.F.B.); Claughton and Upton (C.S.G.).

**Depressaria douglasella, Stt.** Another rare species with us.

Lanc.—Blackpool and Fleetwood (J.B.H.); Wardless (J.H.T.); Crosby (C.S.G.) E.L. Burnley, in 1918 (W.G.C.).

**Depressaria badiella, Hub.** Has only once been recorded since the Ellis List in 1890.

Lanc.—Lytham and Pilling Moss (J.B.H.); Liverpool dist. (C.S.G.) E.L. Cark, one, about 1930 (A.E.W.).

Ches.—One on Wallasey sandhills (J.F.B.) E.L.

**Depressaria pimpinellae, Zell.** There are no recent records.

Lanc.—Grange (J.B.H., J.H.T.); Pilling Moss (J.B.H.) E.L.

Ches.—One near New Brighton (C.S.G.).

**Depressaria albipunctella, Hub.** Another scarce species.

**Lanc.**—Cleveleys (J.H.T.); Hightown (C.S.G.) *E.L.*  
**Ches.**—Wallasey (C.S.G.) *E.L.*

**Depressaria ultimella, Stt.** Very rare.

**Ches.**—Storeton, in 1921 (W.M.).

**Depressaria costosa, Haw.** Common over both counties among broom and gorse.

**Depressaria umbellana, Steph.** Local but common where it occurs.

**Lanc.**—Lathom and Hale (W.A.T.); Formby (W.M.).

**Ches.**—Thurstaston and West Kirby (W.A.T.); Wallasey and Storeton (W.M.).

**Depressaria liturella, Schiff. (flavella, Hub.).** Ellis says "Common and generally distributed," but this does not now appear to be the case.

**Lanc.**—Blackpool and Burnley (W.G.C.); Burnley (A.E.W.); Formby (W.A.T.); Wavertree, Liverpool (W.M.).

**Depressaria pallorella, Zell.** Rare. There are no recent records.

**Ches.**—Delamere (C.S.G.), Rudheath (R.S.E., Zool. ii, 725); Stretford (J.C.) *E.L.*

**Depressaria assimilella, Treits.** Common amongst broom but not recorded in the Ellis List.

**Lanc.**—Formby (W.M.).

**Ches.**—Delamere and near Caldy (W.M.).

**Depressaria atomella, Schiff.** Apparently not common.

**Lanc.**—Longridge and near Stoneyhurst (J.B.H.); Preston and Samlesbury (J.H.T.) *E.L.* Grange in 1918 (A.E.W.).

**Ches.**—Bidston Marsh (C.S.G.) *E.L.* Thurstaston in 1917 (W.A.T.).

**Depressaria subpropinquella, Stt. (rhodochrella, H.-S.).** Local, chiefly on or near the coast sand-hills. *E.L.*

The var. *rhodochrella* has been recorded from Fleetwood (J.B.H.) and Blackpool (R.S.E., Intell. 1859, II, 27) *E.L.*

**Depressaria arenella, Schiff.** Local, but not uncommon.

**Lanc.**—Liverpool dist. (C.S.G.); Lytham (J.B.H.); Preston (J.H.T.); Weaste, near Manchester (J.C.) *E.L.* Grange (A.E.W.).

**Ches.**—Wirral (J.F.B.) *E.L.* Baguley (G.B.); Thurstaston (W.A.T.); West Kirby and Storeton (W.M.).

**West.**—Witherslack (A.E.W., W.M.).

**Depressaria propinquella, Treits.** Local, found chiefly on the coast sand-hills.

**Lanc.**—Lytham (J.B.H.); Grange (J.H.T.) *E.L.*

**Ches.**—Wallasey and Bidston (J.F.B.) *E.L.* West Kirby (W.M.); Thurstaston (W.A.T.).

**Depressaria nanatella, Stt.** A coast species, feeding on the leaves of the carline thistle.

**Lanc.**—Lytham (J.B.H., J.H.T.) *E.L.* Crosby sand-hills (W.M.); Formby, locally c. (W.M., W.A.T.).

**Ches.**—New Brighton (C.S.G.) *E.L.* Delamere, sc. (W.W.).

**Depressaria carduella, Hub.** Scarce and local.

**Lanc.**—Grange (J.B.H., J.H.T.) *E.L.* Crosby sand-hills (W.M.).

**Ches.**—Leasowe (C.S.G.) *E.L.*

**Depressaria angelicella, Hub.** Larvæ can generally be found where its foodplant, angelica, is common.

**Lanc.**—Lytham (J.B.H.); Pilling Moss (Id.); Preston and Salwick (J.H.T.); Manchester dist. (Stainton's Manual, II, 324) *E.L.* Lostock (Stott); Burnley (A.E.W.).

**Ches.**—Delamere, Hatchmere (W.M.).

**West.**—Witherslack (A.E.W., W.M.).

**Depressaria rotundella, Dougl.** We have only one record, viz.: Leasowe, Ches., among sea holly (C.S.G.) *E.L.*

**Depressaria capreolella, Zell.** Recorded only from Grange, Lanc. (J.B.H., J.H.T.); and Delamere, Ches. (C.S.G.) *E.L.*

**Depressaria ciliella, Stt.** Local, but not uncommon.

**Lanc.**—Lytham (J.B.H.); Preston, c. (J.H.T.); Stretford and Withington (J.C.) *E.L.* Gathurst, near Wigan (Hop.).

**Ches.**—Bidston and Upton (J.F.B.); Prenton (C.S.G.) *E.L.* Wallasey (W.A.T.); Storeton (id.).

**Depressaria aplana, Fab.** Common everywhere among umbellifers.

**Depressaria purpurea, Haw.** We have no recent records.

**Lanc.**—Blackpool (J.B.H.); Lytham (J.B.H., J.H.T.) *E.L.*

**Ches.**—Prenton and Wallasey (C.S.G.); Wirral (J.F.B.).

**Depressaria alstroemeriana, Clerck.** Local and uncommon.

**Lanc.**—Lytham (J.B.H.) *E.L.* Blackpool and St. Annes (W.G.C.); Grange (A.E.W.).

**Ches.**—New Brighton (C.S.G.); Wirral (J.F.B.) *E.L.*

**Depressaria ocellana, Fab.** General and common throughout.

**Depressaria yeatiana, Fab.** Only once recorded since the Ellis List in 1890.

**Lanc.**—Blackpool (J.B.H.); Lytham (J.H.T.); Formby (J.W.E.) E.L.

**Ches.**—Wallasey (C.S.G.) E.L. Thurstaston in 1918 (W.A.T.).

**Depressaria hypericella, Hub. (liturella, Hub.).** Scarce and local.

**Lanc.**—Childwall, near Liverpool (C.S.G.); Grange (J.B.H.) E.L. Humphrey Head and Grange (A.E.W.).

**Ches.**—Bollin Valley, near Bowden, J.C.) E.L.

**Depressaria conterminella, Zell.** A common species, but records are almost all from near the coast.

**Lanc.**—Lytham (J.B.H.); Pilling Moss (id.); Preston (J.H.T.) E.L. Hale Bank, Crosby, Formby and St. Helens (W.M.); Southport (W.G.C.).

**Ches.**—Stretford and Withington (J.C.) E.L. Wallasey, common (W.M., C.B.W.).

#### EPIGRAPHIA, Steph.

**Epigraphia steinkellneriana, Schiff.** Very local.

**Lanc.**—Grange (J.H.T.) E.L. Grange, Eggerslack Wood and on Yewbarrow (A.E.W., W.M.); Holker (A.E.W.).

**Ches.**—Alderley (J.C.); Bidston and Upton (C.S.G.); Wirral (J.F.B.) E.L.

**West.**—Witherslack (W.M.).

#### SEMIOSCOPIS, Hub.

**Semioscopis avellanella, Hub.** Scarcer than the last species. We have only one record from each county. Bidston Park Wood (C.S.G.) E.L. Grange, Lanc. (A.E.W.). Witherslack, West (W.M.).

#### Fam. 5. ORNEODIDÆ

##### ORNEODES, Latr.

**Orneodes hexadactyla, L.**

**Lanc.**—Grange (W.M.); Wavertree, Liverpool, not inf (W.M.); Formby, occ. (W.M.).

**Ches.**—Bowdon, Knutsford and Mobberley (J.C.); Delamere Forest (J.B.H.); Eastham Wood (J.W.E.); Wirral (J.F.B.) E.L.

**West.**—Witherslack (W.M.).

#### Fam. 6. ÆGERIADÆ

This family has already been dealt with under the *Sphingidae*.

#### Fam. 7. HELIOZELIDÆ

##### HELIOZELE, H-S.

**Heliozele sericiella, Haw.** Locally abundant.

**Lanc.**—Grange (J.B.H., J.H.T.); Liverpool dist. (C.S.G.); Prestwich (J.C.) E.L. Holker (A.E.W.); Sales Wood, nr. Prescot, c. (W.M.).

**Ches.**—Tranmere (J.F.B.) E.L. Delamere Forest, c. (W.M.).

**Heliozele stanneella, F. v. R.** Very rare in our counties.

**Lanc.**—Manchester dist. (Stainton's Manual, II, 367) E.L.

**Ches.**—Thurstaston, 5 in 1919 (W.A.T.).

**Heliozele resplendella, Stt.** There are no records since the Ellis List was published in 1890.

**Lanc.**—Manchester dist. (Stainton's Manual, II, 367); Preston (J.B.H.).

#### ANTISPILA, Hub.

**Antispila pfeifferella, Hub.** Only once recorded: Pendlebury (R.E. Edleston, Zool. 1845, 1220) E.L.

#### Fam. 8. HELIODINIDÆ

##### PANCALIA, Curt.

**Pancalia leuwenhoekella, L.** Very abundant on the limestone in the Grange and Witherslack districts; the only other record we have is two specimens on the sand-hills at Formby in 1936 (W.M.).

#### SCHRECKENSTEINIA, Hub.

**Schreckensteinia festaliella, Hub.** Only once taken since 1890.

**Lanc.**—Chat Moss (J.C.); Dutton Grange and Windermere (J.B.H.); Preston dist. (J.H.T.); Burnley, Pendle (W.G.C.).

**Ches.**—Bidston, Prenton and Eastham (J.F.B.) E.L.

#### Fam. 9. GLYPHIPTERYGIDÆ

##### SIMÆTHIS, Leach

**Simaethis fabriciana, L.** Abundant everywhere among nettles.

## CHOREUTIS, Hub.

**Choreutis myllerana, Fab.** Local, but not uncommon.

**Lanc.**—Hoghton, nr. Preston (J.H.T.) E.L. St. Annes (T.B.); Yealand Moss (A.E.W.); Eccleston Mere, nr. Prescot and Formby (W.M.).

**Ches.**—Dunham Park and Moss Side (J.C.); Between Poulton and Wallasey (C.S.G.) E.L. Delamere Forest (W.M.); Rostherne (A.W.B.).

## GLYPHIPTERYX, Hub.

**Glypipteryx fuscoviridella, Haw.** Very abundant and widely distributed.

**Glypipteryx thrasonella, Scop.** Very widely distributed among rushes and common. The variety *cladiella*, Stt., occurs in Delamere Forest (W.M.).

**Glypipteryx fischeriella, Zell.** Locally abundant.

**Lanc.**—Irlam (J.C.); Longridge (J.B.H.); Preston (J.H.T.) E.L. Burnley and Grange (A.E.W.); Hale Bank, Formby and Silverdale (W.M.).

**Ches.**—Alderley, r. (H.H.C.); Bidston and Tranmere (J.F.B.); Bromborough (J.W.E.) E.L. Delamere (F.N.P., W.M.); Eastham (W.A.T.).

**Glypipteryx equitella, Scop.** Scarce and local.

**Lanc.**—Grange (J.H.T.); Humphrey Head (J.B.H.) E.L. Grange, c. (A.E.W.).

**Ches.**—Old walls where Sedum acre grows near Wallasey Church (C.S.G.) E.L.

**Glypipteryx haworthana, Steph.** Local on cottongrass.

**Lanc.**—Bury (J.H.T.); Chat Moss (J.C.); on mosses (C.S.G.) E.L.

**Ches.**—Lindow Common (H.H.C.) E.L. Delamere Forest, Hatchmere (W.M.).

**West.**—Witherslack (A.E.W.).

## Fam. 10. ELACHISTIDÆ

## PERITTIA, Staint

**Perittia obscuripunctella, Stt.** Scarce on honeysuckle.

**Lanc.**—Edge Lane, Liverpool (C.S.G.); Grange (J.B.H., J.H.T.) E.L.

**Ches.**—Patrick Wood and Puddington (J.F.B.) E.L. Bromborough, 2 in 1923 (W.A.T.).

## STEPHENIA, Stt.

**Stephensia brunnichiella, L.** Very scarce. Only recorded from near Grange (J.B.H.) E.L.

## ELACHISTA, Treits

**Elachista trapeziella, Stt.** Caton, nr. Lancaster (J.H.T.) E.L.

**Elachista cinereopunctella, Haw.** Recorded from Grange, Lanc. (J.H.T.) and Knutsford, Ches. (J.C.) E.L.

**Elachista gleichenella, Fab.** Very local.

**Lanc.**—Grange (J.B.H.) E.L. Burnley (W.G.C., A.E.W.); Sales Wood, nr. Prescot, abund (W.M.).

**Ches.**—Prestwich (J.C.) E.L. Storeton (W.A.T.).

**Elachista apicipunctella, Stt.** Local and not common.

**Lanc.**—Chat Moss (J.C.); Dutton, nr. Ribchester (J.B.H.); Grange (J.B.H.); Preston (J.H.T.); Simonswood Moss (C.S.G.) E.L. Silverdale (A.E.W.).

**Ches.**—Rostherne Mere (A.W.B.).

**Elachista albifrontella, Hub.** Common and generally distributed, but no localities given. E.L.

**Lanc.**—Liverpool dist. (W.M.); Eccleston Mere, nr. Prescot (W.M.); Burnley, Grange and Prestwich (A.E.W.).

**Ches.**—Rostherne Mere (A.W.B.).

**Elachista luticomella, Zell.** Local, but usually abundant.

**Lanc.**—Preston (J.H.T.); Prestwich (J.C.) E.L. Allerton, near Liverpool, Childwall, Kirkby and Sales Wood, near Prescot (W.M.); Burnley and Grange (A.E.W.).

**Ches.**—Knutsford (J.C.); Rockferry and Bromborough (J.F.B.) E.L.

**West.**—Witherslack (W.M.).

**Elachista atricomella, Stt.** There are no recent records.

**Lanc.**—Grange (J.B.H.); Preston (J.H.T.) E.L.

**Ches.**—Knutsford (J.C.) E.L.

**Elachista alpinella, Stt.** Recorded from Lanc. in Meyrick's Revised Handbook of British Lepidoptera, but I do not know on what authority.

**Ches.**—Delamere Forest c. in 1910 and 1912 (W.M.).

**West.**—Witherslack, c. in 1913 (W.M.).

**Elachista kilmunella, Stt.** Locally abundant.

**Lanc.**—Dutton, near Ribchester (J.B.H.); Grange dist. (J.H.T.); Kirkby Moss (C.S.G.) E.L. Burnley dist. (A.E.W., W.M.); Silverdale (C.B.W.).

**Ches.**—Castle Mill (J.C.); Prenton (C.S.G.); Delamere (J.W.E.) E.L.

**West.**—Witherslack, v.c. (W.M.).

**Elachista perplexella, Stt.** We have no records since 1881.

**Lanc.**—Brockholes Wood, Preston (J.B.H.); Grange (J.H.T.) E.L.

**Elachista subnigrella, Dougl.** A common species and probably more widely distributed than appears from the records.

**Lanc.**—Grange (J.B.H., J.H.T.) E.L. Formby and Sales Wood, Prescot (W.M.); Liverpool, in garden (W.A.T.).

**Ches.**—Delamere Forest (W.M.).

**Elachista nigrella, Haw.** A common and variable species.

**Lanc.**—Liverpool dist. (C.S.G.); Preston (J.H.T.); Grange (J.B.H.) E.L. Grange (A.E.W., W.M.); Burnley (W.G.C.); Wavertree, Liverpool (W.M.).

**Ches.**—Rockferry (J.F.B.) E.L. Delamere Forest, c. (W.M.); Eastham Wood (W.A.T.).

**West.**—Arnside (W.M.).

**Variation.**—The form *gregsoni* Stt. is recorded in the Ellis List as a distinct species; it has since been shewn to be a var. of *nigrella*, the only known locality given is now built over.

**Elachista bedellella, Sirc.** The only locality is Humphrey Head, near Grange, (J.B.H.) E.L.**Elachista obscurella, Stt.** A common and variable species.

**Lanc.**—Preston, c. (J.H.T.) E.L. Burnley (A.E.W.); Crosby, Formby, Wavertree and Silverdale (W.M.).

**Ches.**—Dunham Park (J.C.); Cheshire sand-hills (C.S.G.); Wirral (J.F.B.) E.L. Delamere Forest (W.M., A.W.B.).

**West.**—Witherslack (W.M.).

**Elachista taeniata, Stt.** Grange is our only record (J.B.H., J.H.T.) E.L.**Elachista gangabella, Zell.** Another species recorded only from Grange (J.B.H.) E.L.**Elachista zonariella, Tengst.** Noted only at Preston (J.H.T.) E.L.**Elachista megerella, Stt.** A fairly common species.

**Lanc.**—Grange (J.B.H.); Preston (J.H.T.); Manchester (Stainton's Man. II, 409) E.L. Grange (W.M.); Silverdale (C.B.W.).

**Ches.**—Between Seacombe and Liscard (C.S.G.); Rockferry (J.F.B.) E.L.

**West.**—Arnside, c. and Witherslack (W.M.).

**Elachista adscitella, Stt.** This is now regarded as only a variation of the preceding. Localities are Grange (J.B.H., J.H.T.) E.L. Grange (A.E.W.).

**Elachista serricornis, Stt.** We have no recent records of this species. The Ellis List gives Pilling Moss (J.B.H.).

**Elachista paludum, Frey.** Very local. The old race course, near Tarporley, Ches. (W.M.).

**Elachista biatomella, Stt.** Local and infrequent.

**Lanc.**—Grange (J.B.H., J.H.T.); Silverdale (J.H.T.) E.L. Freshfield and Silverdale (W.M.).

**Ches.**—Bidston Hill and New Brighton (C.S.G.) E.L. Wallasey (W.M.).

**West.**—Meathop (A.E.W.).

**Elachista rhyncosporella, Stt.** Common on the Mosses, where cotton grass grows freely.

**Elachista cerusella, Hub.** Locally common.

**Lanc.**—Grange (J.B.H.); Preston, c. (J.H.T.) E.L. Worsley (Stott); Eccleston Mere, near Prescot, abund. (W.M.); Formby (W.M.).

**Ches.**—Rostherne Mere, c. (A.W.B.).

**Elachista subocelella, Steph. (pollinariella, Stt.)** Infrequent.

**Lanc.**—Grange (J.H.T.) E.L. Lostock in 1891 (Stott).

**Elachista dispunctella, Dup. (triseriatella, Stt.)** Infrequent.

**Lanc.**—Grange (J.H.T., J.B.H.) E.L.

**West.**—Witherslack, one (W.M.).

**Elachista triatomea, Haw.** Rather more frequent than the last two.

**Lanc.**—Morecambe (J.H.T.) E.L. Lostock (Stott).

**Ches.**—Bidston Hill and New Brighton (C.S.G.) E.L.

**West.**—Arnside (W.M.).

**Elachista rufocinerea, Haw.** Abundant everywhere.**Elachista cygnipennella, Hub.** Also an abundant species throughout.**Elachista subalbidella, Schlag.** Local and uncommon.

**Lanc.**—Pilling Moss (J.B.H.) E.L. Grange (A.E.W.).

**Ches.**—Bidston Marsh (J.F.B., C.S.G.) E.L. Delamere (W.M.).

**West.**—Witherslack (W.M.); Meathop (A.E.W.).

## Fam. 12. SCYTHRIDÆ

## SCYTHRIS, Hub.

**Scythris grandipennis**, Haw. Ellis says "Common and generally distributed on heaths," but the following are the only records to hand since 1890.

**Lanc.**—Silverdale (A.E.W.).

**Ches.**—Bickerton Hill (A.W.B.); Thurstanston (W.A.T.).

**Note.** The next four species are exceedingly difficult to identify except by examination of the genitalia and, although given here, they must be regarded as doubtful until fresh material is available.

**Scythris fuscoænea**, Haw.

**Lanc.**—Grange (J.B.H., J.H.T.) E.L.

**Scythris fletcherella**, Durr. (*fuscocuprea*, Meyr.)

**Lanc.**—Grange (J.B.H., J.H.T.) E.L.

Mr. Pierce writes that two specimens in Threlfall's series of *senescens* were *fletcherella* but no data were attached. Probably Hodgkinson's *laminella* from Grange was this species.

**Scythris senescens**, Stt. Recorded from Grange, Lanc., and Bidston Hill, Ches. E.L.

**Scythris laminella**, H-S. This species must be deleted, see note above. There is considerable doubt whether this moth has ever been taken in Britain.

**Scythris fallacella**, Pierce and Metcalfe. This species was added to our list by Mr. Pierce as the result of his study of the Genus; it is very common in N. Lanc.

**Lanc.**—Grange, c. (A.E.W., W.M.); Silverdale, v. c. (W.M.).

**Ches.**—Delamere (W.M.).

**West.**—Witherslack c. (A.E.W., W.M.).

**Scythris cicadella**, Zell. A fine example at Fleetwood 15-VI-94 (J.B.H., Entom. XXVII, 246). This is our only record.

## Fam. 13. HYPONOMEUTIDÆ

## OCNEROSTOMA, Zell.

**Ocnerostoma piniariella**, Zell. Local among firs. E.L. I have found it freely in pine woods throughout. (W.M.).

## CEDESTIS, Zell.

**Cedestis farinatella**, Dup. Common in pine woods throughout.

## ARGYRESTHIA, Hub.

**Argyresthia atmoriella**, Banks. Very scarce. I have taken one specimen at Silverdale, Lanc., and one at Delamere, Ches. (W.M.).

**Argyresthia glabratella**, Zell. Also a very scarce species. Mr. A. E. Wright found a single specimen at Witherslack, West., in 1934.

**Argyresthia arceuthina**, Zell. Common at Grange, Lanc., and at Witherslack and Arnside, West., among juniper.

**Argyresthia dilectella**, Zell. Another juniper feeding species equally common as the last in the same localities.

**Argyresthia andereggiella**, Dup. Apparently very scarce.

**Lanc.**—Grange (J.B.H., J.H.T.); Windermere (J.B.H.) E.L.

**Argyresthia brockeella**, Hub. Very common among birch throughout.

**Argyresthia goedartella**, L. Abundant in birch woods.

**Argyresthia pygmaeella**, Hub. Abundant among sallow specially on the sandhills.

**Argyresthia sorbiella**, Treit. Among mountain ash, infrequent.

**Lanc.**—Chat Moss (J.C.); between Knowsley and Kirkby (C.S.G.); Windermere (J.B.H.) E.L. Grange (W.M.).

**Ches.**—Dunham Park (J.C.) E.L.

**Argyresthia cornella**, Fab. (*curvella*, Stt.) Generally distributed in old orchards, sometimes plentiful (W.M.).

**Argyresthia aurulentella**, Stt. Fairly common among juniper in N. Lanc. and Witherslack district.

**Argyresthia retinella**, Zell. Common among birch specially on the mosses.

**Argyresthia glaucinella**, Zell. Scarce, we have no fresh records.

**Lanc.**—Wildbottoms, near Preston (J.B.H.) E.L.

**Ches.**—Bowdon (J.H.T.); Dunham Park (J.C.); Patrick Wood, near Bromborough (C.S.G.) E.L.

**Argyresthia mendica**, Zell. Scarce and local.

**Lanc.**—Grange (J.B.H., J.H.T.); Windermere (J.B.H.); Withington (J.C.) E.L.

**Ches.**—Wirral (J.F.B.) E.L. Wallasey, 1921 (W.A.T.); Delamere Forest (W.M., A.W.B.).

**Argyresthia semifusca**, Haw. Local and uncommon.

**Lanc.**—Grange and Windermere (J.B.H.); Preston (J.H.T.) E.L.

**Ches.**—Bidston Hill (J.F.B.); Cheadle Hulme (H.H.C.); Heswell (J.W.E.) E.L. Delamere Forest (A.W.B., W.M.).

**Argyresthia conjugella, Zell.** Fairly common among mountain ash.

**Lanc.**—Chat Moss (J.C.); Grange and Windermere (J.B.H.); Liverpool dist. (C.S.G.) *E.L.* Burnley (W.G.C.).

**Ches.**—Bidston Hill (J.F.B.); Staley Brushes (J.C.) *E.L.* Delamere (W.M.); Eastham Wood (W.A.T.).

**Argyresthia spiniella, Zell.** Generally distributed but does not appear to be common anywhere.

**Lanc.**—Grange and Windermere (J.B.H.); Simonswood Moss (C.S.G.); Manchester dist. (Stt.) *E.L.* Burnley (A.E.W.).

**Ches.**—Bidston Hill (C.S.G.) *E.L.* Bidston Hill (C.S.G.) *E.L.* Rostherne (A.W.B.); Storeton Woods (W.M.); Delamere (W.M.).

**Argyresthia ephipella, Fab.** Scarce and local.

**Lanc.**—Grange (J.B.H.); Windermere (J.B.H., J.H.T.); Manchester dist. (Stt.) *E.L.* Grange (A.E.W.).

**Ches.**—A single specimen near Birkenhead (J.F.B.) *E.L.*

**Argyresthia nitidella, Fab.** Abundant throughout. The var. *ossea*, Haw., occurs sparingly with the type.

**Argyresthia albistriaa, Haw.** Common only in N. Lanc. and West.

**Lanc.**—Grange and Windermere (J.B.H.) *E.L.* Holker Moss (A.E.W.); Grange (W.M.).

**Ches.**—Wallasey (C.S.G.); Wirral (J.F.B.) *E.L.*

**West.**—Arnside and Witherslack, c. (A.E.W., W.M.).

**Argyresthia semitestacella, Curt.** Fairly common.

**Lanc.**—Croxeth Park (C.S.G.); Grange and Windermere (J.B.H.); Irlam (J.C.) *E.L.* Burnley (A.E.W., W.G.C.); Grange (A.E.W.).

**Ches.**—Wirral (J.F.B.) *E.L.* West Kirby (W.A.T.); Delamere (W.M.).

#### ZELLERIA, Stt.

**Zelleria hepariella, Stt.** Scarce and local, it seems to be found only in N. Lanc. and the Witherslack district, West.

**Lanc.**—Grange (J.B.H., J.H.T.) *E.L.* Holker (A.E.W.); Grange (A.E.W., W.M.).

**West.**—Meathop (A.E.W.); Arnside (W.M.).

**Variation.**—The forms *insignipennella*, Stt., and *fusca*, Stt., are found with the type and in about equal numbers.

#### SWAMMERDAMIA, Hub.

**Swammerdamia combinella, Hub. (comptella Hub.).** Fairly common but local among blackthorn.

**Lanc.**—Grange (J.B.H.); Liverpool dist. (C.S.G.); Manchester (J.C.) *E.L.* Simonswood (W.M.); Grange (A.E.W.); Lancaster (C.H.F.).

**Ches.**—Wirral (J.F.B.) *E.L.* Wallasey (C.B.W.); Rostherne (A.W.B.).

**Swammerdamia heroldella, Hub. (griseocapitella, Stt., nanivora, Stt.).** Abundant in birch woods.

**Swammerdamia lutarea, Haw. (oxyacanthella, Dup.).** Also plentiful and widely distributed.

**Swammerdamia caesiella, Hub. (spiniella, Hub.).** Very local.

**Lanc.**—Holker (A.E.W.).

**West.**—Arnside Knott, c. (W.M.).

**Swammerdamia pyrella, Vill.** This is another common and generally distributed species.

#### ATEMELIA, H-S.

**Atemelia torquatella, Zell.** Only taken at Witherslack which is not included in Ellis's List, being just over the border in Westmorland. Scarce (A.E.W., W.M.).

#### PRAYS, Hub.

**Prays curtisellus, Don.** Common and generally distributed. The unicolorous var. *rustica*, Haw., is also common.

#### HYPONOMEUTA, Latr.

**Hyponomeuta plumbella, Schiff.** Recorded only from Grange (J.B.H., J.H.T.) *E.L.*

**Hyponomeuta padella, L.** Very common on hawthorn hedges.

**Hyponomeuta cognatella, Hub. (evonymella, Scop.)** Also a common and widely distributed species.

**Hyponomeuta evonymella, L (padi, Stt.)** Locally common.

**Lanc.**—Grange (J.B.H.); Hale (C.S.G.) *E.L.* Nelson, c. (W.G.C.).

**Ches.**—Bramhall (H.H.C., J.C.); Marple and Reddish (J.C.) *E.L.*

#### SCYTHROPA, Hub.

**Scythropa crataegella, L.** Very scarce, the only records are Manchester dist. (Stt.) and Stretford (J.C.) *E.L.*

## COLEOPHORA, Hub.

**Coleophora spissicornis**, Haw. (*fabriciella*, Vill.) Scarce and local.

**Lanc.**—Grange (J.B.H., J.H.T.); Preston (J.H.T.) E.L.

**Ches.**—Bidston (C.S.G.); near Claughton (J.F.B.) E.L.

**Coleophora deauratella**, Zell. Only recorded from Windermere (J.B.H.) E.L.

**Coleophora alcyonipennella**, Koll. Ellis says "Common and generally distributed," but we have only two records since 1890 viz: Woodvale, one in 1922 (W.A.T.) and Grange in 1935 (A.E.W.).

**Coleophora paripennella**, Zell. There are no records since 1884. Grange (J.B.H., J.H.T.) E.L.

**Coleophora fuscocuprella**, H.S. Very scarce.

**Lanc.**—Grange (J.B.H., J.H.T.) E.L.

**Coleophora nigricella**, Steph. Ellis gives no localities, but says "Abundant everywhere." It does not appear to be so.

**Lanc.**—Childwall, Liverpool (W.M.); Grange (A.E.W.); Formby, once only (W.M.); Gathurst (Hop.).

**Ches.**—Delamere (W.M.).

**Coleophora siccifolia**, Stt. Only recorded from Preston (J.B.H., J.H.T.) E.L.

**Coleophora gryphipennella**, Bouch. Local and scarce.

**Lanc.**—Cleveleys (J.H.T.); Withington and Irlam (J.C.); Liverpool dist. (C.S.G.) E.L. Grange, in 1934 (A.E.W.).

**Ches.**—Northenden (J.C.); Wirral (J.F.B.) E.L.

**Coleophora orbitella**, Zell. Occasional only.

**Lanc.**—Carrington Moss (R. S. Edleston) E.L.

**West.**—Witherslack, in 1935 (Hop.).

**Coleophora vitisella**, Gregs. Recorded only from Staley Brushes (J.C., J.B.H.) E.L.

**Coleophora binderella**, Koll (*bicolorella*, Stt.). Recorded only from Grange (J.B.H.) E.L.

**Coleophora viminetella**, Zell. Local but fairly common.

**Lanc.**—Chat Moss, Farington and Longridge (J.H.T.); Preston (J.B.H.); Simonswood Moss (C.S.G.) E.L. Crosby sandhills and Formby (W.M.).

**Ches.**—Wallasey and near Birkenhead (J.F.B.) E.L. Wallasey and Delamere (W.M.).

**Coleophora fuscedinella**, Zell. Very common on birch and elm.

**Coleophora lutipennella**, Zell. Fairly common in oak woods.

**Lanc.**—Chat Moss (J.C.); Preston (J.H.T., J.B.H.) E.L. Grange (A.E.W.).

**Ches.**—Dunham Park (J.C.); Eastham Wood (C.S.G.); Tranmere (J.F.B.) E.L. Delamere (W.M., F.N.P.); Rostherne (A.W.B.); Mere, Ches. (A.W.B.).

**Coleophora limosipennella**, Zell. We have only one record: Grange (J.B.H.) E.L.

**Coleophora laricella**, Hub. Local on larch.

**Lanc.**—Grange (J.B.H., J.H.T.); Liverpool dist. (C.S.G.); Manchester (Stt.); Windermere (J.H.T.) E.L.

**Ches.**—Bidston Hill (J.F.B.); Dunham Park (J.C.) E.L. Delamere v. c. (W.M.).

**West.**—Witherslack, v. c. (W.M.).

**Coleophora juncicolella**, Stt. Not recorded since 1890.

**Lanc.**—Farington and Longridge (J.H.T.); Grange (J.B.H.) E.L.

**Ches.**—Bidston Hill (C.S.G., J.F.B.); Knutsford (J.C.); Puddington (J.F.B.) E.L.

**Coleophora ochrea**, Haw. Only recorded from Upton and Moreton, Ches., by (C.S.G.) E.L.

**Coleophora anatipennella**, Hub. Local and scarce.

**Lanc.**—Farington (J.H.T.); Preston (J.B.H., J.H.T.); Withington and Irlam (J.C.) E.L. Cark (A.E.W.); Formby (W.A.T.).

**Ches.**—Wallasey (C.S.G.); Bidston (J.F.B.) E.L. Rostherne (A.W.B.); Wallasey (C.B.W.).

**Coleophora pyrrhulipennella**, Zell. Ellis says in his list "Common on heaths and mosses," but it has not been taken since his list was published in 1890.

**Coleophora discordella**, Zell. A common species attached to bird's-foot trefoil.

**Coleophora niveicostella**, Zell. Recorded from Manchester (Stainton, Man. II, 390). E.L.

**Coleophora albicosta**, Haw. Common among gorse throughout.

**Coleophora onosmella**, Brahm. Very scarce. Once taken at Rostherne in 1914 (A.W.B.).

**Coleophora troglodytella**, Dup. Recorded only from Grange in 1921, two specimens (A.E.W.).

**Coleophora therinella, Tengst.** A scarce and local species.

- Lanc.**—Preston (J.B.H.) *E.L.* Grange, Cark and Ainsdale (W.M.).  
**Ches.**—Wallasey, a single specimen (J.F.B.) *E.L.*  
**West.**—Witherslack and Arnside (W.M.).

**Coleophora tripoliella, Hodgk.** This rare species is only known from Lancashire (Meyrick, H.B. 1927). On *Aster tripolium* at Fleetwood (J.B.H.) *E.L.* Cark, two in 1919 (A.E.W.); Grange, in 1934 (A.E.W.).

**Coleophora virgaureæ, Stt.** Very local, not recorded since 1890. *E.L.*

- Lanc.**—Grange (J.B.H., J.H.T.); Warrington (N. Greening) *E.L.*  
**Ches.**—Wallasey sandhills (J.W.E.) *E.L.*

**Coleophora laripennella, Zell. (*annulatella*, Tengst).** Local.

- Lanc.**—Fleetwood and Preston (J.B.H.) *E.L.* Liverpool, in garden (W.A.T.).

**Ches.**—Bidston and Wallasey (J.F.B.) *E.L.*

**West.**—Witherslack (W.M., A.E.W.).

**Coleophora salinella, Stt.** A coast species. Only recorded from Fleetwood and Humphrey Head, Lanc. (J.B.H.) *E.L.*

**Coleophora murinipennella, Dup.** Usually common where found.

- Lanc.**—Pilling Moss (J.B.H.) *E.L.* Crosby and Formby (W.M.); Grange (A.E.W.).

**Ches.**—Eastham Wood (W.A.T.); Delamere Forest (W.M.).

**Coleophora glaucicolella, Wood.** This species was identified by Mr. F. N. Pierce by the genitalia; it is common among rushes at Formby, Lanc., but not yet recorded elsewhere in our counties.

**Coleophora cæspititiella, Zell.** Very common among rushes everywhere. The previous species is easily confounded with this.

**Coleophora adjunctella, Hodgk. (*paludicola*, Stt.).** Only found in Lanc.—Preston (J.B.H.) *E.L.* Salt marsh under Humphrey Head (A.E.W.).

*Fam. GRACILARIADÆ*

LITHOCOLLETIS, Hub.

**Lithocolletis roboris, Zell.** Very rare, only taken at Windermere (J.B.H.) *E.L.*

**Lithocolletis cramerella, Fab.** Abundant among oaks everywhere.

**Lithocolletis tenella, Zell.** Windermere (J.B.H.) *E.L.*, and Oakmere, Ches. (A.W.B.).

**Lithocolletis heegeriella, Zell.** Only recorded from Windermere (J.B.H.) *E.L.*

**Lithocolletis messaniella, Zell.** Abundant among oaks throughout.

**Lithocolletis quercifoliella, Zell.** Another abundant species.

**Lithocolletis alnifoliella, Dup.** Abundant everywhere among alder.

**Lithocolletis ulicicolella, Stt.** Local among gorse.

- Lanc.**—Fleetwood (J.B.H.); Stalmine (J.H.T.) *E.L.* Hale Wood (W.M.).

**Ches.**—Poulton and Wallasey (C.S.G.); Prenton (J.F.B.) *E.L.* Storeton (W.A.T.); Delamere (W.M.).

**Lithocolletis scopariella, Zell.** Dutton, near Ribchester (J.B.H.) *E.L.* Not recorded since.

**Lithocolletis coryli, Nic.** Local among hazel.

- Lanc.**—Grange and Preston (J.H.T.); Manchester dist. (Stt.) *E.L.* Grange (A.E.W.).

**Ches.**—Knutsford (J.C.); Prenton (C.S.G.); Wirral (J.F.B.) *E.L.*

**West.**—Witherslack (A.E.W.).

**Lithocolletis faginella, Zell.** Common on beech throughout.

**Lithocolletis spinicolella, Zell.** Common on sloe; the var. *conjunctella*, Steudel, is generally found with the type.

**Lithocolletis sorbi, Frey.** Common on mountain ash, it is not mentioned in Ellis's list.

- Lanc.**—Woolton, near Liverpool, and Sales Wood, near Prescot (W.M.); Burnley (A.E.W.).

**Ches.**—Delamere Forest and Eastham Wood (W.M.).

**Lithocolletis concomitella, Banks.** We have only one record—Sales Wood, near Prescot (W.M.).

**Lithocolletis blancardella, Fab. (*Pomifoliella*, Zell.).** On apple.

- Lanc.**—Silverdale, Grange and Formby (W.M.).

**Ches.**—Delamere Forest (W.M.).

**West.**—Witherslack and Arnside (W.M.).

**Lithocolletis oxyacanthæ, Frey.** This is not mentioned in *E.L.*

- Lanc.**—Hale, Woolton and Knowsley (W.M.), Grange (A.E.W.).

**Ches.**—Frodsham (W.M.).

- Lithocolletis quinqueguttella, Stt.** Locally common on sandhills.  
**Lanc.**—Lytham (J.H.T., J.B.H.) *E.L.* Crosby (W.M.); Formby (W.M., W.A.T.).  
**Ches.**—Wallasey (C.S.G., J.F.B.) *E.L.* Do. in 1920 (W.M.).
- Lithocolletis salicicella, Sirc.** Not recorded since 1890.  
**Lanc.**—Liverpool dist. (C.S.G.); Longridge (J.B.H.); Manchester dist. (Stt.) *E.L.*
- Lithocolletis viminetorum, Stt.** Local among osier.  
**Lanc.**—Manchester dist. (Stt.); Liverpool dist. (C.S.G.); Grange (J.H.T.); Windermere (J.B.H.) *E.L.* Formby (W.M.).
- Lithocolletis cavella, Zell.** Common in Delamere Forest (W.M.).
- Lithocolletis spinolella, Dup.** Local and uncommon.  
**Lanc.**—Chat Moss (J.C.); Preston dist. (J.H.T.); Windermere (J.B.H.); nr. Simonswood Moss (C.S.G.) *E.L.* Silverdale (C.B.W.); Burnley (A.E.W.); Gathurst, nr. Wigan (Hop.).  
**Ches.**—Delamere Forest (W.M.); Thurstanston (War.).
- Lithocolletis ulmifoliella, Hub.** Common throughout.
- Lithocolletis nigrescentella, Logan (bremiella, Frey.)** Grange (A.E.W.).
- Lithocoletis schreberella, Fab.** There are no recent records.  
**Lanc.**—Preston (J.H.T.); Manchester dist. (Stt.) *E.L.*
- Lithocolletis trifasciella, Haw.** Not common.  
**Lanc.**—Grange (A.E.W.); Formby (W.M.).  
**Ches.**—Thurstanston (W.A.T.); Delamere (W.M.).
- Lithocolletis emberizipennella, Bouche.** Not recorded since 1890.  
**Lanc.**—Hale (C.S.G.); Preston, c. (J.H.T.); Windermere (J.B.H.) *E.L.*  
**Ches.**—Eastham Wood (C.S.G.); Mobberley and Knutsford (J.C.) *E.L.*
- Lithocolletis tristrigella, Haw.** Locally abundant.  
**Lanc.**—Cheetham Hill (R.S.E.); Preston and Grange (J.H.T.); Prescot (C.S.G.) *E.L.* Grange (A.E.W.).  
**Ches.**—Bidston Hill (J.F.B.); Upton (C.S.G.) *E.L.*
- Lithocolletis stettensis, Nic.** Very local.  
**Lanc.**—Formby (C.S.G.); Preston (J.H.T.); Windermere (J.B.H.) *E.L.* Sales Wood, near Prescot, v.c. (W.M.).  
**Ches.**—Rostherne and Marbury Park (A.W.B.); Delamere Forest (W.M.).

- Lithocolletis frolichiella, Zell.** We have no records since 1890.  
**Lanc.**—Grange and Preston (J.H.T.); Windermere (J.B.H.); Huyton Quarry (C.S.G.) *E.L.*  
**Ches.**—Tranmere (J.F.B.) *E.L.*
- Lithocolletis nicellii, Stt.** Another scarce species.  
**Lanc.**—Croxteth (C.S.G.); Grange and Preston (J.H.T.); Windermere (J.B.H.) *E.L.*
- Lithocolletis kleemannella, Fab.** May be bred from alder.  
**Lanc.**—Formby (C.S.G.); Manchester dist. (Stt.); Preston (J.H.T.) *E.L.*  
**Ches.**—Clifton Park, Birkenhead (J.F.B.) *E.L.* Delamere Forest (W.M.).  
**West.**—Witherslack (W.M.).
- Lithocolletis viminiella, Stt.** Not uncommon but local.  
**Lanc.**—Manchester (Stt.); Farington and Grange (J.H.T.); Windermere (J.B.H.) *E.L.* Hale, Knowsley and Simonswood Moss (W.M.); Formby (W.A.T.).  
**Ches.**—Rostherne (A.W.B.); Wallasey and Delamere (W.M.).
- Lithocolletis corylifoliella, Haw.** Ellis says "Common among hazel but gives no localities. We only have the following:  
**Ches.**—Delamere Forest (W.M.); Wallasey (W.A.T.).
- Lithocolletis comparella, Zell.** Scarce and local among aspen.  
**Lanc.**—Grange and Cartmel (A.E.W.); Formby (W.M.).  
**Ches.**—Delamere (W.A.T.).
- Lithocolletis amyotella, Dup.** Very scarce.  
**Lanc.**—Windermere (J.B.H.) *E.L.*  
**Ches.**—Delamere, one in 1916 (W.M.).
- Lithocolletis hortella, Fab.** Only recorded from Windermere by (J.B.H.) *E.L.*
- ORNIX, Treits**
- Ornix guttea, Haw.** Local on apple, specially in the larval stage.  
**Lanc.**—Grange and Preston (J.H.T.); Windermere (J.B.H.) *E.L.* Silverdale and Formby (W.M.); Grange (A.E.W.).  
**Ches.**—Bidston and Moreton (C.S.G.); Upton and Tranmere (J.F.B.) *E.L.* Delamere Forest (A.W.B., W.M.).

*Ornix loganella*, Stt. Scarce and local.

**Lanc.**—Grange (J.H.T.); Simonswood Moss (C.S.G.); Windermere (J.B.H.) E.L.

**West.**—Witherslack, in 1935 (A.E.W.).

*Ornix avellanella*, Stt. Local but common among hazel.

**Lanc.**—Croxteth Woods (C.S.G.); Preston (J.H.T.); Windermere (J.B.H.) E.L. Grange (A.E.W., W.M.); Holker (A.E.W.).

**Ches.**—Hale Barn and Bucklow Hill (J.C.); Prenton Lane (C.S.G.) E.L. Rostherne (A.W.B.).

**West.**—Witherslack (W.M.).

*Ornix torquillella*, Zell. Common among sloe. Not recently recorded from Ches.

**Lanc.**—Cleveleys and Grange (J.H.T.); Windermere (J.B.H.) E.L. Tarbock, nr. Liverpool (W.M.).

**Ches.**—Tranmere (J.F.B.) E.L.

**West.**—Witherslack and Arnside (W.M.).

*Ornix scoticella*, Stt. Very local and not common.

**Lanc.**—Grange (J.H.T.); Windermere (J.B.H.) E.L. Grange (W.M.).

**Ches.**—Bidston, one (J.F.B.) E.L.

**West.**—Witherslack (W.M.).

*Ornix betulæ*, Stt. Very common and widely spread among birch.

*Ornix anglicella*, Stt. Not recorded in Ellis's list, but it is common in hawthorn hedges and widely spread.

#### GRACILARIA, Haw.

*Gracilaria auroguttella*, Steph. Very scarce and infrequent.

**Lanc.**—Between Broad Green and Woolton (C.S.G.); Grange and Pilling Moss (J.B.H.); Chorlton-cum-Hardy (J.C.); Scorton, nr. Preston (J.H.T.) E.L. Grange, Yewbarrow (A.E.W.).

**Ches.**—Wallasey (War.).

*Gracilaria phasianipennella*, Hub. Very common some years at Witherslack, scarce elsewhere.

**Lanc.**—Grange (J.B.H.) E.L. Formby, sc. (W.M.).

**Ches.**—Claughton, unc. (C.S.G.); Delamere Forest (C.S.G.) E.L.

**West.**—Witherslack (A.E.W.).

*Gracilaria syringella*, Fab. Very common and widely spread.

*Gracilaria cuculipennella*, Hub. Very scarce in our district.

**Lanc.**—Grange (J.B.H., J.H.T.); Windermere (J.B.H.) E.L. Grange (A.E.W.).

*Gracilaria sulphurella*, Haw. Only recorded from Hale, Lanc., by (C.S.G.) E.L.

*Gracilaria tringipennella*, Zell. Double brooded and not uncommon.

**Lanc.**—Fleetwood (J.H.T.); Grange (J.B.H.); Withington (J.C.) E.L. Formby and Silverdale (W.M.); Grange (A.E.W.).

**Ches.**—Puddington and near Birkenhead (J.F.B.); Wallasey (J.W.E.) E.L.

**West.**—Witherslack and Arnside (W.M.).

*Gracilaria populetorum*, Zell. Only recorded from Grange (J.B.H., J.H.T.) E.L.

*Gracilaria elongella*, L. A local and variable species.

**Lanc.**—Croxteth Park (C.S.G.); Grange (J.B.H., J.H.T.) E.L. Wavertree and West Kirby (W.M.); Grange and Burnley (A.E.W.); Formby (W.G.C.).

**Ches.**—Dunham Park (J.C.) E.L. Delamere Forest, sometimes c. (W.M.).

**West.**—Witherslack (A.E.W.).

*Gracilaria alchimiella*, Scop. Common and generally distributed.

*Gracilaria stigmatella*, Fab. Common on the sandhills together with var. *stramineella*, Stt.

**Lanc.**—Chat Moss (J.B.H.); Cheetham Hill (R.S.E.); Preston and Grange (J.H.T.) E.L. St. Annes (A.E.W., W.M.); Formby (W.A.T., W.M.)

**Ches.**—Cheshire sandhills (C.S.G., J.F.B.) E.L. Delamere Forest (F.N.P.).

**West.**—Witherslack (A.E.W.).

*Gracilaria hemidactylella*, Fab. Recorded only from Dunham Park, Ches., by J. Chappell, E.L.

*Gracilaria semifascia*, Haw. Recorded only from Grange (J.B.H.) E.L.

Fam. EPERMENIADÆ

CATAPLECTICA, Wals.

*Cataplectica profugella*, Stt. Very scarce and local.

**Lanc.**—Grange (B.B.H.) E.L.

**West.**—Witherslack (A.E.W.).

**Cataplectica fulviguttella, Zell.** Local and not common.

**Lanc.**—Barton, nr. Manchester (J.C.); Preston (J.B.H., J.H.T.); Wardless (J.H.T.); Liverpool dist. (C.S.G.) *E.L.* Grange (A.E.W.); Windermere (W.M.).

**Ches.**—Castle Mill and Mobberley (J.C.) *E.L.*

Fam. *PLUTELLIDÆ*

*ORTHOTÆLIA, Steph.*

**Orthotælia sparganella, Thunb.** Not recorded since 1890.

**Lanc.**—Pendleton (J.C.) *E.L.*

**Ches.**—Bidston Marsh (J.F.B.); nr. Birkenhead (C.S.G.) *E.L.*

*EIDOPHASIA, Steph.*

**Eidophasia messangiella, F.v.R.** We have no recent records.

**Lanc.**—Brockholes Wood, nr. Preston (J.B.H., J.H.T.); nr. Ribchester (J.B.H.); Hoghton (J.H.T.); Manchester dist. (Stt.) *E.L.*

*CEROSTOMA, Latr.*

**Cerostoma xylostella, L.** Local among honeysuckle.

**Lanc.**—Hale (W.M.); Burnley (W.G.C.); Old Trafford (G.W.).

**Ches.**—Delamere, c. (W.M., F.N.P.).

**Cerostoma nemorella, L.** Local and not common.

**Lanc.**—Cleveleys and Wardless (J.H.T.); Preston dist. (J.B.H.) *E.L.* Grange and Burnley (A.E.W.).

**Ches.**—Bidston (C.S.G.) *E.L.* Delamere (War.).

**Cerostoma scabrella, L.** We have only one record—Grange (J.B.H.) *E.L.*

**Cerostoma lucella, Fab.** Recorded from the Manchester dist. (Stt. Manual, II, 314, 1857) *E.L.*

**Cerostoma sylvella, L.** Recorded from Dunham Park (J.C.) *E.L.*

**Cerostoma radiatella, Don.** Local and not common.

**Lanc.**—Croxeth Wood (C.S.G.); Grange (J.H.T.); Preston (J.B.H.) *E.L.* Grange (A.E.W.).

**Ches.**—Dunham Park (J.C.); Wirral (J.F.B.) *E.L.* Delamere Forest (W.M., W.A.T.); Storeton (W.A.T.).

**West.**—Arnside, c. (A.E.W., W.M.).

**Cerostoma costella, Fab.** Common and generally distributed.

**Cerostoma sequella, Clerck.** Not recorded since 1857. Dunham Park, Ches. (R.S.E.) *E.L.*

**Cerostoma vitella, L.** Generally distributed and common on elm.

*PLUTELLA, Schrank*

**Plutella porrectella, L.** Local and infrequent.

**Lanc.**—Liverpool dist. (C.S.G.); Preston (J.B.H., J.H.T.) *E.L.* Grange (A.E.W.); Formby (W.M.).

**Ches.**—Rockferry, sc. (J.F.B.) *E.L.* Delamere (W.M.).

**Plutella maculipennis, Curt. (cruciferarum, Zell.)** Abundant everywhere.

**Plutella annulatella, Curt.** Only recorded from Morecambe in *E.L.*

**Plutella datella, Stt.** There are no recent records.

**Ches.**—Bidston Hill (J.F.B., C.S.G.); Claughton (J.F.B.); Staley Brushes (J.C.) *E.L.*

*ACROLEPIA, Curt.*

**Acrolepia granitella, Treits.** We have no new records.

**Lanc.**—Grange (J.B.H.); Pendleton and Irlam (J.C.); Preston and Cleveleys (J.H.T.) *E.L.*

**Ches.**—Bidston, one (J.F.B.); Liscard, two (C.S.G.) *E.L.*

**Acrolepia pygmæana. Haw.** Grange, Lanc. (J.B.H.) *E.L.*

Fam. *LYONETIADÆ*

*OPOSTEGA, Zell.*

**Opostega salaciella, Treits.** Local and uncommon.

**Lanc.**—Barton Moss (J.C.); Preston (J.B.H.) *E.L.* Woodvale, nr. Formby (W.M., W.A.T.); Grange (A.E.W.).

**Ches.**—Delamere Forest (F.N.P.).

**Opostega crepusculella, Zell.** Local and infrequent.

**Lanc.**—Grange and Preston (J.B.H., J.H.T.) *E.L.* Formby (W.M.).

**Ches.**—Bidston (C.S.G.) *E.L.*

**West.**—Witherslack, one in 1935 (W.M.).

*LEUCOPTERA, Hub.*

**Leucoptera laburnella, Stt.** Common on laburnum throughout.

**Leucoptera spartifoliella, Hub.** Common where broom grows freely.

**Leucoptera wailesella, Stt.** Local and scarce.

**Lanc.**—Dutton, nr. Ribchester and Samelsbury (J.H.T.); Longridge (J.B.H.) E.L. Simonswood Moss, one (W.M.).

**Ches.**—Near Mottram (Stainton, Man. II, 426) E.L.

**Leucoptera scitella, Zell.** Local and apparently scarce.

**Lanc.**—Flixton and Glazebrook (J.C.); Preston, c. (J.H.T.); Pighue Lane, Liverpool (C.S.G.) E.L. Woolton, two in 1911 (W.M.).

**Ches.**—Tranmere (J.F.B.) E.L. Upton Valley (W.A.T.).

**LYONTIA, Hub.****Lyonetia clerckella, L.** Local but fairly common. The dark form usually occurs with the type.

**Lanc.**—Grange (J.B.H.); Liverpool dist. (C.S.G.); Silverdale (J.H.T.) E.L. Grange (A.E.W.); Wavertree (W.M.); Formby (W.A.T.).

**Ches.**—Bowdon (J.C.) E.L. Delamere Forest (W.M.); Storeton Wood, c. (W.M., W.A.T.); West Kirby (W.M., W.A.T.).

**West.**—Witherslack, a yellow form (A.E.W.).

**TISCHERIA, Zell.****Tischeria complanella, Hub.** Ellis says "Common in oak woods," but we have not found it so; he does not give localities.

**Lanc.**—Grange (A.E.W.); Burnley (W.G.C.).

**Ches.**—Delamere Forest (W.M.).

**West.**—Arnside (W.M.).

**Tischeria dodonea, Heyd.** Very scarce and local.

**Lanc.**—Grange (J.H.T.); Windermere (J.B.H.) E.L.

**Ches.**—Delamere, one in 1918 (W.M.).

**Tischeria marginea, Haw.** Rather more frequent than the two last.

**Lanc.**—Grange and Preston (J.H.T.); Windermere (J.B.H.); Manchester dist. (Stt.) E.L. Grange (A.E.W.); Formby (W.A.T.).

**Ches.**—Flaybrick Hill and Patrick Wood (C.S.G.); Wirral (J.F.B.) E.L. Delamere (A.W.B.); Storeton Wood (W.M., W.A.T.).

**Tischeria angusticolella, Dup.** Manchester, not recorded since 1858 (Stainton, Man. II, 415) E.L.**BUCCULATRIX, Zell.****Bucculatrix cristatella, Zell.** Scarce and local.

**Lanc.**—Grange (J.B.H.) E.L. Crosby (W.M.); Formby (W.A.T.).

**Bucculatrix frangulella, Goze.** Only recorded from Grange (J.B.H., J.H.T.) E.L.**Bucculatrix cidarella, Zell.** Manchester (Stainton, Man. II, 427).  
**West.**—Witherslack (A.E.W.).**Bucculatrix nigricomella, Zell. (Aurimaculella, Stt.).** Scarce.

**Lanc.**—Grange (J.B.H., J.H.T.); Preston (J.H.T.) E.L. Grange and Cark, rare (A.E.W.).

**Ches.**—Bidston (J.H.T.) E.L.

**Bucculatrix maritima, Stt.** Recorded from Lancashire only.

**Lanc.**—Fleetwood (J.B.H.); Stalmine (J.H.T.) E.L. Southport, c. (W.M.); Cark and Grange (A.E.W.).

**Bucculatrix thoracella, Thunb.** Not taken since 1890.

**Lanc.**—Grange (J.B.H.); (Stainton, Man. II, 429) E.L.

**Bucculatrix demaryella, Stt.** Grange (J.B.H., J.H.T.) E.L.**OINOPHILA, Steph.****Oinophila v-flavum, Haw.** Very local and infrequent.

**Lanc.**—Ashton-on-Ribble (J.B.H.) E.L. Liverpool, in Castle Street shop (F.N.P.).

**Fam. TINEIDÆ****TRICHOPHAGA, Rag.****Trichophaga tapetiella, L.** A common pest on wool and fur but not often recorded.

**Lanc.**—Liverpool (W.A.T.); Cark (W.M.).

**Ches.**—Delamere Forest (W.M.); Altringham (A.W.B.).

**MONOPIS, Hub.****Monopis rusticella, Hub.** Common throughout.**Monopis imella, Hub.** Local and uncommon.

**Lanc.**—Linacre Marsh (C.S.G.); Manchester (J.C.) E.L. Formby (W.A.T., W.M.); Crosby sandhills (W.M.).

**Ches.**—Delamere (W.M.).

**Monopis ferruginella, Hub.** We have no record since 1890.

**Lanc.**—Kirkby Wood (C.S.G.); Lytham (J.H.T., J.B.H.); Manchester (J.C.) E.L.

**Monopis fenestratella, Heyd.** We have only one record from each county—Burnley, in 1909 (W.M.), and Wallasey (C.B.W.).

*MEESIA, Hofm.*

**Meesia argentimaculella, Stt.** Recorded from Bowdon, Ches., in 1858 (R.S.E.) and by Threlfall. E.L.

*TINEOLA, H-S.*

**Tineola biselliella, Hum.** A common pest on wool and fur throughout.

*TINEA, L.*

**Tinea fulvimitrella, Sodof.** Not common.

**Lanc.**—Agecroft and Prestwich (J.C.); Manchester (J.H.T.); Liverpool (C.S.G.) E.L. Burnley (W.G.C.).

**Ches.**—Dunham Park (J.C.); Staley Brushes (J.B.H.) E.L. Eastham Wood (W.A.T.).

**Tinea arcella, Fab.** Uncommon, we have no records since 1890.

**Lanc.**—Kirkby (C.S.G.); Longridge and Penwortham (J.B.H.); Preston and Wardless (J.H.T.); Manchester (Stt.) E.L.

**Ches.**—Puddington, sc. (J.F.B.) E.L.

**Tinea corticella, Curt.** Common and widely distributed in woods.

**Tinea parasitella, Hub.** Our only localities are in Ches.—Bidston, sc. (J.F.B.) E.L. Eastham Wood, f.c. (W.A.T.).

**Tinea picarella, Clerck.** Not recorded since 1857 (Stainton, Man. II, 290). E.L.

**Tinea granella, L.** Ellis says "Common in both counties in grain warehouses," but we have only one recent record, 1922 (W.M.), abundant round a flour mill on the Dock Road, Liverpool.

**Tinea cloacella, Haw.** Very common throughout both counties.

**Tinea albipunctella, Haw.** Very local and infrequent.

**Lanc.**—Cleveleys (J.H.T.); Grange (J.H.T., J.B.H.); Brockholes Wood, Preston (J.H.T.) E.L.

**Ches.**—Bidston, sc. (J.F.B.) E.L.

**Tinea confusella, H-S.** Only recorded from Morecambe (J.H.T.) E.L.

**Tinea nigripunctella, Haw.** Two specimens from Wallasey (C.S.G.) E.L.

**Tinea misella, Zell.** Local and scarce.

**Lanc.**—Huyton (J.H.T.) E.L. Liverpool in 1917 (W.A.T.).

**Ches.**—Tranmere in granaries (C.S.G.) E.L.

**Tinea fuscipunctella, Haw. (flavescutella, Stt.)** Ellis says "Abundant everywhere" without giving localities.

**Lanc.**—Liverpool (W.M.); Burnley (A.E.W.).

**Ches.**—Wallasey, f.c. (Dr. W. Bell).

**Tinea lanella, Pierce.** This species was added to the British list as new to science by Mr. F. N. Pierce as the result of his researches upon the structure of the genital armature. The moths were bred from larvae found on alpaca wool in Liverpool (W.M., W.A.T.).

**Tinea pellionella, L.** A very common pest on wool and fur material.

**Tinea pallescentella, Stt.** Another common warehouse pest where wool and skins are stored.

**Tinea lapella, Hub.** Local, has been bred from bird's nests.

**Lanc.**—Grange and Preston (J.H.T.); Liverpool dist. (C.S.G.); Manchester dist. (H.H.C.); Pendleton and Eccles (J.C.) E.L. Formby, Grange and Hale (W.M.); Silverdale (A.E.W.).

**Ches.**—Wirral (J.F.B.) E.L. Wallasey (War.).

**Tinea semiflavella, Haw.** Fairly common and widely distributed.

*OCHSENHEIMERIA, Hub.*

**Ochsenheimeria birdella, Curt.** Local and uncommon.

**Lanc.**—Blackpool (R.S.E.); Preston (J.H.T., J.B.H.) E.L. Formby (W.A.T., W.M.).

**Ches.**—Bramhall and the Bollin Valley (J.C.); Liscard (C.S.G.); near Seacombe (J.F.B.) E.L.

**Ochsenheimeria bisonella, Zell.** Common in the Pennine woods, scarce elsewhere.

**Lanc.**—Near Oldham (J.C.); Longridge (J.H.T., J.B.H.); near Ribchester (J.B.H.) E.L. Grange (A.E.W.); Burnley (A.E.W., W.G.C.); Rochdale (W.M.).

**Ches.**—Recorded from Bidston lighthouse (C.S.G.) E.L.

**Ochsenheimeria vaculella, F.v.R.** Rare.

**Lanc.**—Manchester dist. (Stainton, Man. II, 1957) E.L.

**Ches.**—Hartford, one in 1917 (W.M.).

## TALAEPORIA, Hub.

**Talæporia pseudobombycella, Hub.** No records for Lancashire.

**Ches.**—Bidston Hill (C.S.G.); Bidston Heath (J.F.B.); Delamere (J.B.H.); Dunham Park (J.C.); Knutsford (H.H.C.) E.L. Delamere Forest, very common some years but local (W.M.).

## SOLENOBIA, Dup.

**Solenobia inconspicuella, Stt.** Local, sometimes common.

**Lanc.**—Preston (J.B.H.); Prestwich and Pendlebury (J.C.) E.L.

**Ches.**—Jackson's Wood, Claughton (C.S.G.); Wirral (J.F.B.) E.L. Delamere Forest, c. (W.M.).

## LUFFIA, Tutt.

**Luffia lapidella, Goze.** Recorded by Mr. A. E. Wright from Grange in 1937. The moth was identified by Mr. Ed. Meyrick.

## NARYCIA, Steph.

**Narycia melanella, Haw.** Very rare, recorded from Cheshire only.

**Ches.**—Bowdon (J.H.T.); Eastham Wood (J.F.B.); Prenton Wood, one (C.S.G.) E.L.

**Narycia marginepunctella, Steph.** Scarce and local.

**Lanc.**—Cleveleys (J.H.T.); Preston (J.H.T., J.B.H.); near Simonswood Moss (C.S.G.) E.L.

**Ches.**—Rockferry (J.F.B.) E.L. Delamere Forest, one (F.N.P.).

## Fam. LAMPRONIADÆ

## PHYLLOPORIA, Hein.

**Phylloporia bistrigella, Haw.** Scarce and infrequent.

**Lanc.**—Woolton (C.S.G.); Grange (J.H.T.); E.L. Grange and Holker (W.M.).

**Ches.**—Bidston (J.F.B.) E.L. Delamere Forest (W.M.).

## INCURVARIA, Haw.

**Incurvaria pectinea, Haw.** We have no records since 1890.

**Lanc.**—Among birch in Liverpool dist. (C.S.G.); Grange (J.H.T.); Windermere (J.B.H.) E.L.

**Incurvaria muscalella, Fab.** Common and generally distributed.

## LAMPRONIA, Steph.

**Lampronia capitella, Clerck.** Recorded from Manchester dist. (Stain-ton Man. II, 297, 1857) E.L.

**Lampronia celimanniella, Treit.** Occasional specimens only.

**Lanc.**—Woolton, Liverpool (C.S.G.); Grange (J.H.T.); Manchester (R.S.E.); Preston (J.B.H.) E.L. Grange (A.E.W.); Burnley (W.G.C.); Simonswood Moss and Sales Wood (W.M.).

**Ches.**—Bidston and Hooton (C.S.G.) E.L. Delamere (W.M.).

**West.**—Witherslack (W.M.).

**Lampronia prælatella, Schiff.** Local and scarce.

**Lanc.**—Brockholes Wood, Preston (J.B.H.); Grange (J.H.T.); Manchester dist. (St. Man. II); Withington (J.C.) E.L.

**West.**—Witherslack in 1933 (Hop.).

**Lampronia luzella, Hub.** Local and usually scarce.

**Lanc.**—Grange (J.B.H.); Withington (J.C.) E.L. Burnley (W.G.C.).

**Ches.**—Eastham Wood, f.c. (W.M., W.A.T.); Stretton Moss (A.W.B.).

**Lampronia rubiella, Bjerk.** Sometimes a pest on raspberry in gardens.

**Lanc.**—Barton Moss (J.C.); Brockholes Wood (J.B.H.); Liverpool dist. (C.S.G.) E.L. Grange (A.E.W., W.M.); Burnley (A.E.W.); Formby, c. in garden (W.M.).

**Ches.**—Marple and Delamere (J.C.) E.L. Rostherne (A.W.B.); Delamere (W.M.).

**Lampronia quadripunctella, Steph.** Ellis says "Local and generally distributed," but gives no localities.

**Lanc.**—Hale, c. on one occasion (W.M.); Formby, one bred (W.M.).

**Lampronia pubicornis, Haw. (flavifrontella, Hein.)** Very scarce.

**Lanc.**—Near Grange (J.B.H.) E.L.

**West.**—Arnside, two in 1921 (W.M.).

**Lampronia tenuicornis, Stt.** Very scarce, we have no records since the Ellis list in 1890.

**Lanc.**—Manchester (St. Man. II); Preston (J.B.H.) E.L.

## Fam. ADELIDÆ

## NEMATOIS, Hub.

**Nematois minimella, Zell.** Only recorded from Longridge and near Ribchester (J.B.H.) E.L.

**Nematois cupriacella, Hub.** Very rare.

**Lanc.**—Manchester dist. (Stainton, Man. II, 301) *E.L.*  
**West.**—Witherslack, one in 1917 (A.E.W.).

**Nematois degeerella, L.** Local but sometimes common.

**Lanc.**—Rainford Moss (C.S.G.); Worsley and Woolden Woods (J.C.) *E.L.* Prescot (Rev. R. Freeman); Sales Wood, Prescot, c. (W.M.); Holker (A.E.W., H.L.B.).

ADELA, *Latr.***Adela cuprella, Thunb.** Dunham, Old Park (J.C.) *E.L.***Adela viridella, Scop.** Common and generally distributed.**Adela croesella, Scop.** Very seldom met with in our counties.

**Lanc.**—Brockholes Wood, near Preston (J.B.H.) *E.L.*  
**West.**—Witherslack, in 1933 (Hop.).

**Adela rufimitrella, Scop.** Not common except at Grange.

**Lanc.**—Glazebrook (J.C.); near Preston (J.B.H.); Manchester dist. (St. Man. II) *E.L.* Newby Bridge (J.D. Ward); Grange (A.E.W.).  
**Ches.**—Bidston Marsh (C.S.G.); Bollin Valley (J.C.) *E.L.*

**Adela fibulella, Schiff.** Local, common only at Grange.

**Lanc.**—Glazebrook and Withington (J.C.); Grange and Preston (J.B.H.) *E.L.* Silverdale and Yealand Moss (W.M.); Grange (A.E.W.).

**Ches.**—Patrick Wood, nr. Bromborough (C.S.G.) *E.L.*

**West.**—Witherslack (W.M., Hop.).

NEMOPHORA, *Hub.***Nemophora swammerdammella, L.** Locally common.

**Lanc.**—Grange and Silverdale (J.H.T.); Prestwich (J.C.) *E.L.* Burnley (W.G.C.).

**Ches.**—Alderley, Bramall and Taxal (H.H.C.); Dunham Park, Knutsford and Delamere (J.C.) *E.L.* Congleton Edge (A.W.B.); Tatton Park (A.W.B.).

**Nemophora schwarziella, Zell.** Fairly common and general.**Nemophora pilella, Fab.** Local and scarce.

**Lanc.**—Longridge Moors (J.H.T., J.B.H.) *E.L.* Grange in 1921 (A.E.W.).

**Nemophora metaxella, Hub.** Another scarce species.

**Lanc.**—Longridge Moors (J.B.H.); Salwick, nr. Preston (J.H.T.) *E.L.*

**Ches.**—Delamere, one in 1908 (C.B.W.).

## Fam. NEPTICULIDÆ

NEPTICULA, *Heyd.*

This Genus has been very little studied since the days of Hodgkinson and Threlfall, some forty to sixty years ago. The following with few exceptions is a reprint of the Ellis List dated 1890. The records from Bowdon, Ches., were taken from a list given by R. S. Edleston in the *Zoologist* for 1857, p. 5827.

**Nepticula pomella, Vaughan.** Preston and Grange (J.B.H., J.H.T.).**Nepticula pygmaeella, Haw.**

**Lanc.**—Grange (J.B.H.); Preston (J.H.T.); Liverpool dist. (C.S.G.).  
**Ches.**—Bowdon (R.S.E.).

**Nepticula atricapitella, Haw.** (*ruficapitella*, *Haw.*)

**Lanc.**—Preston (J.H.T.); Windermere (J.B.H.); Grange and Sales Wood, nr. Prescot (W.M.).

**Ches.**—Bowdon (R.S.E.); Bromborough (C.S.G.).

**Nepticula tiliæ, Frey.** Grange (J.B.H.).**Nepticula anomalella, Goze.**

**Lanc.**—Grange (J.B.H.); Preston (J.H.T.); Liverpool dist. (C.S.G.).  
**Ches.**—Bowdon (R.S.E.); Eastham Wood (W.A.T.).

**Nepticula viscerella, Stt.** Bowdon (R.S.E.).**Nepticula aucupariæ, Frey.** Grange (J.H.T.); Windermere (J.B.H.); Bowdon (R.S.E.).**Nepticula minusculella, H.-S.** Preston (J.B.H., J.H.T.).**Nepticula oxyacanthella, Stt.**

**Lanc.**—Grange (J.B.H.); Preston (J.H.T.).

**Ches.**—Bowdon (R.S.E.); Tranmere (J.F.B.).

**Nepticula desperatella, Frey.** Grange (J.H.T.); Windermere (J.B.H.).**Nepticula regiella, H.-S.** Preston (J.B.H.); Bowdon (R.S.E.).**Nepticula æneofasciella, H.-S.** Grange (J.H.T.); Windermere (J.B.H.); Liverpool dist. (W.M.).**Nepticula splendidissimella, H.-S.** Lytham (J.H.T.); Windermere (J.H.T.).**Nepticula aurella, Stt.** Abundant everywhere among bramble. Sales Wood, one in 1919 (W.M.).**Nepticula poterii, Stt.** Grange (J.B.H.); Arnside (W.M., A.E.W.).

- Nepticula gratosella*, Stt. Preston (J.B.H., J.H.T.); Bowdon (R.S.E.).
- Nepticula ulmivora*, Fologne. Grange (J.H.T.); Ribchester (J.B.H.).
- Nepticula prunetorum*, Stt. Grange (J.B.H.); Bowdon (R.S.E.).
- Nepticula marginecolella*, Stt. Grange (J.H.T.); Preston (J.B.H.).
- Nepticula alnetella*, Stt. Preston (J.H.T.); Windermere (J.B.H.); Bowdon (R.S.E.).
- Nepticula centifoliella*, Stt. (Hodgkinson, Stt.). Preston (J.B.H., J.H.T.); Arnside (W.M.).
- Nepticula microtheriella*, Stt. Grange (J.B.H.); Bowring Park, nr. Liverpool in 1918 (W.A.T.); Bowdon (R.S.E.).
- Nepticula betulicola*, Stt. Grange (J.B.H., J.H.T.); Bowdon (R.S.E.).
- Nepticula plagicolella*, Stt. Grange and Preston (J.H.T., J.B.H.); Bowdon (R.S.E.).
- Nepticula ignobilella*, Stt. Preston (J.B.H., J.H.T.); Bowdon (R.S.E.).
- Nepticula glutinosæ*, Stt. Preston (J.H.T.); Windermere (J.B.H.).
- Nepticula luteella*, Stt. Grange and Windermere (J.B.H., J.H.T.).
- Nepticula sorbi*, Stt. Preston and Longridge (J.H.T.); Windermere (J.B.H.); Silverdale, in 1909 (C.B.W.).
- Nepticula woolhopiella*, Stt. Grange (J.H.T.).
- Nepticula argentipedella*, Zell.
- Lanc.—Grange (J.B.H., J.H.T.); Silverdale (W.M.); Formby, in 1918 (W.A.T.).
- Ches.—Bowdon (R.S.E.); Delamere (W.M.); Rostherne (A.W.B.).
- Nepticula basalella*, H.-S. (*tityrella*, Stt.; *fulgens*, Stt.). Grange and Preston (J.H.T.); Grange and Windermere (J.B.H.); Bowdon (R.S.E.).
- Nepticula castanella*, Edleston. Meyrick remarks (Revised Handbook of British Lepidoptera) that the original description is too indefinite to serve as a recognisable species.
- Nepticula malella*, Stt. Grange (J.H.T.); Bowdon (R.S.E.).
- Nepticula atricollis*, Stt. Grange (J.H.T.); Bowdon (R.S.E.).
- Nepticula angulifasciella*, Stt. Grange (J.H.T.); Preston (J.B.H., J.H.T.); Bowdon (R.S.E.).
- Nepticula arcuatella*, H.-S. Grange (J.H.T., J.B.H.).
- Nepticula myrtillella*, Stt. Windermere (J.B.H.).

- Nepticula salicis*, Stt. (*vimineticola*, Frey.; *obliquella*, Hein.).
- Lanc.—Chat Moss (J.C.); Grange (J.B.H.); Preston (J.H.T.).
- Ches.—Bowdon (R.S.E.); Wirral (J.F.B.).
- Nepticula floslactella*, Haw. Common everywhere.
- Nepticula lapponica*, Wocke. Grange (J.H.T.); Windermere (J.B.H.).
- Nepticula septembrella*, Stt. Grange (J.H.T., J.B.H.); Bowdon (R.S.E.).
- Nepticula catharticella*, Stt. Grange (J.B.H., J.H.T.); Bowdon (R.S.E.).
- Nepticula intimella*, Zell. Grange (J.B.H.).
- Nepticula weaveri*, Stt. Dutton, nr. Ribchester (J.B.H.); Staley-brushes (J.C.); Bowdon (R.S.E.).
- Nepticula trimaculella*, Haw. Leyland (J.H.T.); Bowdon (R.S.E.).
- Nepticula subbimaculella*, Haw. Common everywhere.
- Nepticula argyropeza*, Zell. (*apicella*, Stt.) Grange (J.B.H.).
- Nepticula cryptella*, Stt. Grange (J.B.H.).
- Nepticula pulverosella*, Stt. Dutton, nr. Ribchester (J.B.H.); Grange (J.H.T.); Delamere Forest in 1917 (W.M.).
- TRIFURCULA, Zell.
- Trifurcula immundella*, Zell. (*squamatella*, Stt.).
- Lanc.—Dutton (J.B.H.); Lytham and Rivington (J.H.T.) E.L.  
Formby (W.A.T., W.M.).
- Trifurcula pallidella*, Zell. Recorded only from Dutton, nr. Ribchester (J.B.H., J.H.T.) E.L.
- SCOLIAULA, Meyr.
- Scoliaula quadrimaculella*, Boh. Preston (J.H.T.) E.L.
- Fam. MICROPTERYGIDÆ
- ERIOCRAVIA, Zell.
- Eriocrania semipurpurella*, Steph. (*inconspicuella*, Wood).
- Lanc.—Chat Moss (J.C.); Grange (J.H.T.); Windermere (J.B.H.); Lancashire Mosses (C.S.G.) E.L.
- Ches.—Delamere Forest (W.M.).
- West.—Witherslack (W.M., A.E.W.).

**Eriocrania purpurella, Haw.** A local species.

**Lanc.**—Copy Wood, nr. Middleton (R.S.E.); Lancashire Mosses (C.S.G.); Manchester dist. (Stt.) *E.L.*  
**Ches.**—Delamere Forest (W.M.).  
**West.**—Witherslack (W.M.).

**Eriocrania sparmannella, Bow.** Also a local species.

**Lanc.**—Grange (J.H.T.); Simonswood Moss (C.S.G.); Manchester dist. (Stt.); Windermere (J.B.H.) *E.L.*  
**Ches.**—Delamere Forest (W.M.); Rudheath (A.W.B.).

**MNEMONICA, Meyr.****Mnemonica unimaculella, Zett.** Local and infrequent.

**Lanc.**—Chat Moss (J.C.); Withnell (J.H.T.); Windermere (J.B.H.); Lancashire Mosses (C.S.G.) *E.L.*  
**Ches.**—Delamere (C.S.G.) *E.L.* Storeton (W.A.T.); Delamere (W.M.).

**Mnemonica subpurpurella, Haw.** Abundant in oak woods throughout.**MICROPTERYX, Hub.****Micropteryx thunbergella, Fab.** Local and not common.

**Lanc.**—Croxteth Wood (C.S.G.); Manchester dist. (Stt.); Grange and Windermere (J.B.H.) *E.L.* Grange and Silverdale (W.M.).  
**West.**—Witherslack (A.E.W., W.M.).

**Micropteryx mansuetella, Zell.** Only recorded from Manchester dist. (Stainton, Man. II, 1957) *E.L.***Micropteryx aureatella, Scop. (allionella, Fab.).** Fairly common.

**Lanc.**—Chat Moss (J.C.); Grange (J.H.T.); Windermere (J.B.H.) *E.L.* Burnley (A.E.W.).  
**Ches.**—Knutsford (J.C.) *E.L.* Delamere (W.M., W.A.T.).  
**West.**—Witherslack (A.E.W., W.M.).

**Micropteryx aruncella, Scop.** The var. *seppelia*, Fab., usually occurs with the type.

**Lanc.**—Grange and Preston (J.H.T.); Windermere (J.B.H.); Manchester dist. (Stt.) *E.L.* Grange (A.E.W., W.M.); Silverdale (W.M.).

**Ches.**—Dunham Park and Knutsford (J.C.); Bidston and Tranmere (J.F.B.); New Brighton (C.S.G.) *E.L.* Prenton (W.A.T.).

**West.**—Witherslack (A.E.W., W.M.).

**Micropteryx calthella, L.** Very common throughout.**SUPPLEMENTARY LIST OF THE LEPIDOPTERA OF LANCASHIRE AND CHESHIRE AND THE ADJACENT AREAS OF WESTMORLAND.**

This Supplementary List is published in order that the revised Ellis List, begun in 1913, may be brought up to date. Additions to L. & C. fauna are included as well as new records of species interesting for their rare appearance in our counties or for some other particular reason, are also noted.

The names employed in this Supplement for the Rhopalocera are those published by the Committee on Generic Nomenclature of the Royal Entomological Society of London, but the sequence of species is the same as that in the revision. That for the Heterocera follows the nomenclature in the 1933 edition of South's *Moths of the British Isles*; where necessary the older, better-known names are inserted in brackets.

Since the commencement of the revision in 1913 many new contributors have sent notes of their captures and their help is gratefully acknowledged.

**RHOPALOCERA**

**Danaus plexippus, L.** One seen and followed for some distance at Nelson, Lanc., by Mr. C. Balder, 26-6-33. This record was investigated and accepted by the late Mr. W. G. Clutton.

**Leptidea sinapis, L.** This butterfly must be considered to be extinct in our faunal area, it has not been seen at Witherslack since 1909.

**Colias hyale, L.** Dee Cop, near Chester, in 1901 (P. G. Nagle); Cheadle Hulme, captured by Mr. Brierley, reported by Mr. W. Buckley.

**Colias croceus, Fourcroy (edusa, Fab.).** There are numerous records of this species nearly all being from the coast of Lancashire and Cheshire. Var. *helice*, Hub. Levenshulme, in 1892 (B.H.C.); Nelson, one in 1933 by Mr. C. Balder (W.G.C.); Dalton-in-Furness, 20-8-33 (*Entom.* lxvii, 42); Chester in 1922 (P. G. Nagle).

**Argynnis selene, Schiff.** After many years' absence this butterfly has re-appeared in Delamere Forest. Some numbers were taken in 1933-4 by members of the Manchester Entomological Society. It has also been noted again in the Witherslack district, 1916-17 (W.M.); 1933 (A.E.W.).

**Argynnis cydippe, L. (adippe, L.).** Additional records are for Cheshire: Near Hatchmere in 1917, 19 and 21 (Carr); Saughall, near Chester, 1917 and 18 (P. G. Nagle); Grappenhall, near Warrington (Womersley).

**Argynnis paphia, L.** Very rare in our counties.

**Ches.**—One in Delamere Forest in 1934 (A.W.B.).

**West.**—One at Arnside in 1935, captured by Mr. Hayward (A.E.W.). Mr. Wright visited the place several times soon after without success.

**Polygonia c-album, L.** Odd specimens are reported nearly every season from various places in Lanc. and Ches. In 1936-7 Mr. A. W. Boyd noted it "in fair numbers" in two localities about two miles apart in S. Cheshire.

**Aglais urticae, L.** The var. *polaris* is reported from several localities; viz.:—

**Lanc.**—Cartmel, 1918 (R.W.); near Wigan, 1921 (Hop.); Grange in 1935 (A.E.W.).

**Ches.**—Chester, 1915 and subsequently (S.G.S.); Delamere in 1918 (W.M.). The variety with the black costal area has also been taken in Lancs. but it is of very rare occurrence. One at Gathurst near Wigan in 1921 (Hop.); one at Grange in 1920 (R.C.L.).

**Nymphalis io, L.** The var. *cyanosticta* occurred at Cark, Lancs. in 1921, a few were bred from a gathering of wild larvæ (W.M.).

**Nymphalis antiopa, L.** We have several new records of this rarity.

**Lanc.**—Droylsden, near Manchester, one seen in his garden but not captured, 10-X-17 (Wm. Buckley); one at Heaton, near Bolton, captured by Mr. G. Abbott and now in the Chadwick museum, Bolton; Grange, one seen in his garden, 1927 (J. Davis Ward).

**Ches.**—Hale, one in 1917, seen by the late T. A. Coward after capture; Chelford, near Alderley Edge, one taken by Miss Donner about 1927 (B.H.C.).

**Satyrus Galathea, L.** This species which used to be taken in fair numbers at Great Morton, near Blackpool, has not been seen for many years and should now be considered extinct in our counties.

**Erebia aethiops, Esper (blandina, Fab.).** This species is still common at Arnside but appears to be extinct at Grange, Silverdale and Witherslack. Mr. S. P. Doudney took a fine xanthic aberration at Arnside in 1919.

**Pararge aegeria, L.** The only new record for this species is S. Cheshire in 1935-6-7, local but fairly common (A.W.B.).

**Aphantopus hyperanthus, L.** This is an addition to our list. Noted in S. Cheshire in fair numbers in 1936 and again in 1937 (A.W.B.).

**Coenonympha tullia, Muller (davus, Fab.).** This insect is almost if not quite, extinct at Delamere. At Whixall it is still common and also at Witherslack.

**Strymon (Thecla) w-album, L.** Only recorded from Cheshire. Chester, locally common in 1926 (F. G. Nagle); S. Ches. not uncommon in 1935-6 (A.W.B.); Weaver Valley, several in 1936 (J. Moore, per A.W.B.).

**Thecla quercus, L.** Additional locality: Holker, fairly common (S.P.D., A.E.W.). The var. *bella* occurs occasionally at Arnside (A.E.W.).

**Callophrys (Thecla) rubi, L.** Mobberley, Ches. is an additional locality for this species; common in 1933 (R. Baker).

**Lycæna phloeas, L.** Some good varieties of this butterfly have been taken, viz.:—

**Lanc.**—Var. *radiata*: Woolton in 1917 (W.A.T.); Ainsdale in 1919 (W.M.); Cark in 1933 (A.E.W.). Mr. Wright also records from Cark a specimen having the orange band on the hind-wings obsolete and also a specimen of var. *alba*, Tutt.

**Ches.**—A remarkable specimen with the right side very pale straw colour, intermediate between var. *alba* and var. *schmidii*, the left side being normal, was captured at Delamere, 8-VI-18, by Mr. O. J. Wilkinson, who sent me a photograph of the specimen.

**West.**—Mr. A. E. Wright records a specimen of var. *minor*, Tutt from Witherslack in 1936.

**Plebejus (Lycæna) argus, Kluk (ægon, Schiff.).** This local butterfly has practically disappeared from its former localities; a small colony in a restricted area at Witherslack yielded a few specimens in 1936-7, but it is apparently doomed to extinction in a short time due to overcollecting. This is greatly to be regretted as the var. *masseyi* (formerly believed to be var. *corsica*) has not been taken in any locality except the mosses in N. Lancs. and the Witherslack district of Westmorland.

**Cosmolyce (Lycæna) boeticus, L.** I have found the following overlooked record, viz.: “A specimen captured at Heswall, Ches., by Master McFee, in 1886 or 1887, was exhibited at a meeting of the L. & C. Ent. Soc. by Mr. R. Newstead.”

**Aricia (Lycæna) agestis, Schiff. (astrache, Bergstr.).** Interesting forms of this species have been taken by Mr. A. E. Wright at Grange. A form with white spots on the upper side, var. *graafi*, ver Huell, and another with yellow spots instead of the usual orange, var. *pallidior*, Obth. These two variations are known from Holland but these are the first British records. In 1938 he records four specimens of var. *brunnescens*, Harrn, from the same district.

**Polyommatus (Lycæna) icarus, Rott.** A beautiful example of var. *striata* was taken at Delamere in May, 1921, by Mr. W. Buckley.

**Lysandra (Lycæna) coridon, Poda.** The only additional record that I have been able to discover is that six or seven specimens taken near Witherslack about 1911 by Mr. R. Mallinson, of Windermere. This record has never been confirmed by subsequent captures.

**Lycænopsis (Lycæna) argiolus, L.** New records are viz.:—

**Ches.**—Eaton Park, fairly common near the Iron Bridge (P. G. Nagle); S. Ches. in 1935 (A.W.B.).

**Cupido (Lycæna) minimus, Feuss.** This butterfly has not been reported from its very restricted locality at Witherslack since 1922.

**Syrichthus (Hesperia) malvæ, L. (alveolus, Hub.).** Very rare in our counties. A single specimen was taken at Delamere in 1918 (C.F.J.); and another in 1920 by the Rev. F. M. B. Carr. In 1922 Mrs. O'Sullivan captured two on Arnside Common, West.

**Erynnis (Nisoniades) tages, L.** In 1918 and following years Mr. P. G. Nagle found it at Saughall, near Chester.

**Adopea (Hesperia) sylvestris, Poda (thaumas, Hufn.).** I have a record of its occurrence at Middle Hulton, near Bolton in 1914 (A.R.).

**Hesperia comma, L.** Mr. A. Miles Moss, of Windermere, captured a specimen on the Lanc. side of Windermere, close to the Ferry Hotel (*Entom.* xxviii, 1895, p. 336).

## SPHINGES

### Fam. SPHINGIDÆ

**Acherontia atropos, L.** Odd examples have been taken during the last 35 years shewing the moth to be widely distributed. The most noteworthy being its occurrence in the Bromborough district of Cheshire in 1938 when some half-dozen examples were recorded by several collectors. A particularly interesting record was that of a dead imago being found in a beehive at Bebington and brought to me for identification in 1938 (W.M.).

**Herse (Sphinx) convolvuli, L.** We have a number of additional records of this handsome moth, chiefly of single specimens.

**Lanc.**—St. Helens, 1917 (J. Cot.); St. Annes, 1917 (C. Place); Old Trafford, 1917 (G. F. Gee); Grange, 1921, at valerian flowers (J. D. Ward); Newton Heath, in 1924 (A. Mellor); Grange, three in garden in 1927 (R.C.L.); Nelson, one in 1930 (C. Baldwin); also taken at Grange in 1931 (R.C.L.) and 1935 (A.E.W.).

**Ches.**—Captures in 1917 were as follows, viz.: Wallasey (J.G.W.); Sale (G. A. Holt); Bowdon (R. Nuttall); Eaton Hall, by a gardener; Hale (J. C. Thurgarland).

**Sphinx ligustri**, L. One was taken at Grange in 1917 (A.E.W.) and one at Nelson in 1926 (W.G.C.).

**Deilephila galii**, Schiff. Although there have been verbal reports of this species on the Lancashire sandhills none have been satisfactorily confirmed.

**Phryxus (Deilephila) livornica**, Esp. This handsome migrant occurred at Grange in 1922 (A.E.W.); 1931 (J. D. Ward); three in garden at flowers (R.C.L.); Oldham, 1931 (F. H. Stubbs); Formby, Mr. G. de C. Fraser took two in his garden at flowers of rhododendron and another was given to me, having been captured at flowers of phlox, 13-VI-31.

**Daphnis (Chærocampa) nerii**, L. Another rare migratory species. I have found another and earlier record for Prestwich, viz.:—A single specimen in 1917, taken by Mr. Crozier and until recently in the collection of Mr. Cosmo Meville. In 1923 an example was found at rest on a wall at Wigan by Mr. J. R. Forshaw and is now in the Liverpool Museum.

**Hippotion (Chærocampa) celerio**, L. Grange: One was clearly seen at valerian flowers in 1922 (A.E.W.).

**Mesoptilus (Chærocampa) porcellus**, L. and **M. elpenor**, L. Both of these hawk moths have occurred in great numbers in the garden of Mr. G. de C. Fraser at Formby.

**Hemaris (Macroglossa) fusiformis**, L. Macclesfield, bred from a dug pupa by Mr. G. Wynne.

**Hemaris tityus (bombyliformis, Och.)**. Captured on Hampsfell, Grange in 1921 (R.C.L.).

**Sesia spheciiformis**, Fab. In 1895 a good many larvæ were found at Windermere, not far from the railway station, by Mr. A. Miles Moss (*Entom.* xxviii, 336).

**Sesia vespiformis**, Lasp. This, an addition to our list, occurred at Macclesfield, Ches., in 1915 (G. Wynne).

**Ino statices**, L. Additional records are Yealand Moss in 1929 (W.P.S.); and near Moss Bridge, Formby (G.de C.F., W.M.).

### BOMBYCES

Fam. NYCTEOLIDÆ. H-S.

**Sarothripus revayana**, Treit. (*undulanus*, Hub.). Additional localities are Foxfield, Cartmel Fell in 1922 (R.C.L.); Humphrey Head, near Grange, two in 1934 (A.E.W.); Arnside, West., several specimens (W.M., H.C.H.).

**Nola confusalis**, H-S. Both Dr. Lowther and Mr. Wright report this as fairly common at Grange every season and Mr. H. C. Hayward has found it at Arnside, West.

**Cybosia (Lithosia) mesomella**, L. Holker Moss, Lanc. (A.E.W., W.M.) and Whixall Moss, Ches. (A.W.B.) are new localities for this pretty species.

**Lithosia complana**, L. This species is an addition to our area.

Lanc.—Silverdale in 1921 (W.M.); Formby, one at light on the shore sandhills in 1938 (G.de C.F.).

West.—Witherslack, common at light in 1921 (R.C.L.).

**Aeonestis (Gnophria) quadra**, L. We have two new Lanc. records, viz.:—Grange, in garden in 1936 (R.C.L.); and Holker, 1936 (H.L.B.).

**Parasemia (Nemeophila) plantaginis**, L. An example of the var. *hospita* was recorded from Holker Moss in 1920 by Mr. J. Davis Ward. New localities in Ches. for the type are Delamere Forest (P. G. Nagle) and Broxton, in 1927 (S.G.S.).

**Diaphora (Spilosoma) mendica**, Clerck. This unusual species was taken in his garden at Formby in 1933 by Mr. Fraser, and at Grange and Witherslack in 1937 by Mr. Wright.

**Hepialis sylvina**, L. A good locality for this local swift, not before given, is Warton Crag, near Carnforth (W.M., S.P.D.).

**Zeuzera pyrini, L.** This species is probably imported to our counties with fruit trees, it does not appear to have become established here.

**Lanc.**—Near Eccles, one in 1936, recorded by Mr. A. W. Boyd.

**Ches.**—In 1920 it occurred at Preston Brook, Hatton and Daresbury (F. Womersley); Chorlton-cum-Hardy (Mr. S. Lowe); Hale and Mobberley in 1923 (A. K. Lawson); near Wilmslow, 1923-4 (*Id.*).

**Lymantria monacha, L.** Two larvæ obtained in Delamere Forest in 1901, by Mr. S. Gordon Smith, yielded one imago of the typical form and one var. *eremita, Och.*

**Drepana binaria, Hufn. (hamula, Esp.).** I have found a record of the capture of this species near Prescot by the Rev. R. Freeman.

**Cerura (Dicranura) bicuspis, Bork.** The following are additional records.

**Lanc.**—Chorley, near Bolton, one about 1868 (A.R.).

**Ches.**—Macclesfield, several in years 1914 to 1920 (G. Wynne).

**Pterostoma palpina, L.** Chester at light in 1930 (S.G.S.).

**West.**—In 1922 several specimens were taken at light at Witherslack (S.G.S., W.M.) and in 1931 (J. K. Matthews).

**Odontosia (Notodonta) carmelita, Esper.** Dr. R. C. Lowther has sent the following interesting records of this scarce species.

**Lanc.**—One bred from a larva taken on a moss near Windermere in 1910; Fristlethwaite, near Haverthwaite, in 1918-19, at light; Grange, taken off a lamp under Yewbarrow Crag by Mr. Young; Mr. A. E. Wright also took a specimen at Yewbarrow in 1934.

**Notodonta trepida, Esper.** A very scarce species in Lanc.

**Lanc.**—Furness Fell in 1902 (Dr. Brooksbank); Bigland, near Grange, in 1921 (R.C.L.).

**West.**—Arnside in 1920 (Hop.).

**Drymonia trimacula, Esper (dodonea, Hub.).** Taken by Dr. Lowther on Bigland Fell in 1921-2; Witherslack, Westmorland, some six or eight specimens were taken at light in 1922 (S.G.S.).

**Palimpsestis (Cymatophora) fluctuosa, Hub.** A first record for our counties. One was taken at light at Cartmel in 1925 by Dr. R. C. Lowther.

### NOCTUÆ

**Demas coryli, L.** Hitherto considered scarce, has occurred freely some years in N. Lanc.

**Lanc.**—Grange district in 1921-2, about 70 specimens at light (R.C.L.).

**Ches.**—Mr. Wynne reports two specimens labelled Macclesfield, 1915.

**West.**—Witherslack, several at light in 1922 (S.G.S.).

**Acronycta tridens, Schiff.** This species, new to Lanc., occurred at Grange in 1936 where Dr. Lowther took the larvæ in his garden.

**Coenobia rufa, Haw.** We have one new record of this local species, viz.:—Nelson district in 1928 (W.G.C.).

**Nonagria geminipuncta, Haw.** This species, new to Lanc., occurred at Hall Road, Crosby, in 1931 and 1933 (H.W.W.).

**Nonagria dissoluta, Treits. (arundineta, Schmidt).** New to our list, has been recorded from Formby in 1936 (G.de C.F.); and from Hatchmere, Ches. in 1922 (S.G.S.).

**Xylophasia sublustris, Esper.** Additional localities are all in North Lanc., viz.:—Silverdale (W.P.S.); Grange, a few in 1923 (R.C.L.), one in 1936 (A.E.W.).

**Xylophasia hepatica, L.** This species also is reported again from N. Lanc.: Silverdale (W.P.S.); Grange in 1921 (A.E.W.); a few in 1923 (R.C.L.).

**Neuria reticulata, Vill.** Mr. S. Gordon Smith confirms the previous Chester records by taking one at light in 1923.

**Luperina gueneei, Dbl.** This very local moth has not been recorded since about 1916; the writer understands that the hollows where it occurred at St. Annes have been filled up in order to extend the promenade.

**Miana latruncula, Lang.** Previously considered to be a melanic variety of *M. strigilis* it was recognised as a distinct species by an examination of the genital armature. I have taken it at Crosby, Lanc. and the Wallasey sandhills, Ches.; it is common at both places (W.M.).

**Stilbia anomala, Haw.** A local and scarce species in our counties.

**Lanc.**—One at Carnforth in 1889 (H. Murray); Grange in 1921 (A.E.W.); Newton-in-Cartmel, two at light in 1922 (R.C.L.).

**West.**—Arnside, fairly common in 1930 (H.C.H.).

**Agrotis lucerneae, L.** Reported as not uncommon at Catlow in the Nelson district (A. Brindle). The local form is the var. *renigera*, Steph. In Westmorland it is fairly common on Whitbarrow, overlooking Witherslack (R.C.L., A.E.W.).

**Noctua ditrapezium, Bork.** This species has now been found to occur regularly in the Grange district and also at Witherslack; in 1933 Mr. H. W. Wilson bred a specimen from a larva found at Formby.

**Amphipyra pyramidaea, L.** The first Lancashire record I have received is from Grange, where Dr. Lowther took one in his garden in 1936.

**Tæniocampa gracilis, Fab.** Larvæ obtained at Witherslack in 1931-2 gave a series of rosy and red forms like those found in the New Forest. The larvæ were found on sweet gale.

**Plastenis subtusa, Fab.** Formby, common (H.W.W., W.M.). The larvæ may be found on the balsam poplar at the end of May.

**Dianthoecia conspersa, Esper (nana, Rott.).** Grange in 1931 (A.E.W.); do. in 1935 (R.C.L.); Thurstaston, Ches. in 1935 (W. G. Warren).

**Eumichtis (Hadena) saturata, Hub.** This scarce species was taken at light at Chester in 1930 by Mr. S. Gordon Smith.

**Cucullia verbasci, L.** This moth is now well established in the Grange and Witherslack district. First recorded in 1936 (R.C.L.), larvæ have been taken each year since. The first Cheshire record was in 1927 when the late R. Tait found larvæ in his garden on plants grown from seed.

**Plusia bractea, Fab.** After a long period of absence this moth has returned to our counties but only in small numbers. The earlier records are, therefore, given in full.

**Lanc.**—Longridge and Preston (J.B.H.); near Hyde, Manchester (R. S. Edelston); Staley brushes (J.C.M.), E.L.; Grange in 1930 (A.E.W., R.C.L.); Ulverston, one in 1931 (Mr. Birkett); 1939, Formby, one at light on the shore sandhills (G.de C.F.).

**Ches.**—Bowdon (R. S. Edelston and J. Sidebottom); Marple, Disley and Macclesfield, rare (J. C.), E.L.; Macclesfield (R. South); Sale, one (Mr. Breakspear), D.L.; Alderley Edge in 1933 (A. E. Tonge).

**Plusia moneta, Fab.** During the last twenty years this pretty moth has extended its range in our counties as follows, viz.:—

**Lanc.**—Great Crosby in 1930 (H.W.W.); Nelson district in years 1934-7 (A. Clark, C. Baldwin); Grange (A.E.W.).

**Ches.**—Egremont, at light (W.A.T.); Alderley Edge (A. E. Tonge); Heaton Moor (R. B. Copley); Bebington (H. Driver).

**Heliothis peltigera, Schiff.** This scarce species occurred at Grange in 1930, when Dr. Lowther took a specimen at light.

**Heliothis armigera, Hub.** Another rarity, taken at Grange in 1931 by Dr. Lowther, at valerian flowers.

**Euclidia glyphica, L.** We have one new record from each county of this species, viz.:—Yealand Moss, Lanc., one in 1929 (W.P.S.) and near Balderton station, Ches. in 1926 (P. G. Nagle).

## GEOMETRÆ

**Crocallis elinguaria**, L. A specimen of the form common in Scotland having the central fascia obsolete, was taken in his garden at Bromborough, Ches. by Mr. B. B. Snell, a few years ago.

**Boarmia abietaria**, Hub. This species was found to be common in the old fir woods on Holker Moss; it has probably been overlooked owing to its resemblance to the common black forms of *B. repandata* (A.E.W., W.M.). Mr. S. Gordon Smith reports having bred a series from larvæ found at Broughton, near Chester, in 1934.

**Nemoria viridata**, L. A fine specimen found at rest in a lane near Oulton Park in 1937 (W.M.) is the first Cheshire specimen on record.

**Ania (Acidalia) emarginata**, L. A specimen from the Delamere district in 1934 is our first record since 1887 (S.G.S.).

**Timandra amataria**, L. A new record is Bromborough, not common (B.B.S.).

**Chiasmia (Strenia) clathrata**, L. Seldom taken. It occurred at Grange in 1934-5 (A.E.W.).

**Sterrhia sacaria**, L. I have found an old record of its having been taken at Witherslack by G. Loxham. The specimen went to Hodgkinson's collection.

**Oporabia filigrammaria**, H-S. Formby, one in 1936 (G.de C.F.). A distinctly moorland species but I have seen the specimen and have no doubt about its determination.

**Perizoma (Emmelesia) tæniata**, Steph. A new locality for this very local moth was discovered near Grange in 1932 by Mr. W. G. Clutton; since then it has been taken in fair numbers but unfortunately the place is being developed as a building site.

**Perizoma unifasciata**, Haw. In 1932 Dr. Lowther took this moth in his garden at Grange and finds it to occur sparingly most years.

**Eupithecia succenturiata**, L. This local species has been taken at Bromborough, Ches., in 1936 (B.B.S.); the same year Mr. H. Driver took it at Bebington.

**Eupithecia scabiosata**, Bork. Our only record since 1887 is Bromborough in 1929, also by Mr. Snell.

**Phibalapteryx vittata**, Bork. (*lignata*, Hub.). This, another local species of which we have few records, occurred at Formby in 1933 (G.de C.F.); and again in 1937 (A.W.B.).

**Ortholitha (Eubolia) cervinata**, Schiff. Recorded from Formby in 1936 (G.de C.F.); and from Heswall in 1938 (S.G.S.).

**Ortholitha umbrifera**, Prout. This species, hitherto confused with *O. plumbaria*, Scop. which it closely resembles, is probably common in our counties. I have found it in my own series of *plumbaria* from Delamere and it is said to be common at Thurstaston, Ches., but this requires confirmation. It should be looked for in late May and early June. Since the above was written I understand that these records refer to a new species, viz.: *O. scotica*, Cockayne.

## PYRALIDINA

## Fam. PHYCITIDÆ

**Epischnia boisduvaliella**, Guen. (*farrella*, Curt.). A single specimen captured at Formby, 28-vi-21 (W.M.) was not satisfactorily identified until recently; it is an addition to our list and although sought for it has not occurred again.

**Homoeosoma cretacella**, Roesl. (*senecionis*, Vaughan). This, another addition to our list, is abundant in the larval stage at Formby. In 1937 I bred a short series and also the following year but I have never taken the imago (W.M.).

**Eurhodope avenella**, Zinck. Mr. A. E. Wright records this scarce species from Grange where he took a single specimen in 1918.

**Aphomia sociella**, L. Fairly common at Grange in 1933 (A.E.W.); and at Holker in 1937 (War.).

**Crambus hamellus**, Thunb. After a long interval this insect has occurred again at Delamere. Reported by Mr. Warren in 1935.

**Crambus uliginosellus**, Zell. This also still occurs at Delamere (H.L.B.).

**Crambus falsellus**, Schiff. Mr. W. G. Warren found this pretty moth in good numbers on old stone walls at Holker in 1935.

**Crambus salinellus**, Tutt. A first record for Cheshire is Burton Salt Marsh in 1935 and following years (H.L.B., W.G.W.).

**Chilo phragmitellus**, Hub. Recorded from Gathurst, near Wigan, one in 1935 (Hop.).

#### Fam. PYRAUSTIDÆ

**Acentropus niveus**, Ol. Additional localities are, viz.:—

Lanc.—Holker, c. in 1935 (H.L.B.); Grange, three at light in 1939 (A.E.W.).

West.—Witherslack, c. (A.E.W., H.L.B.).

**Donacaula (Schoenobius) mucronella**, Schiff. A specimen of this uncommon species was taken at Bromborough, Ches., by Mr. Snell.

**Nymphula stagnata**, Don. Recent records of this species are all in Lanc.: Carlton, near Blackpool in 1925 (W.G.C.); Holker, 1935 (W.G.W.); Formby, 1937 (W.M.).

**Phlyctænia ferrugalis**, Hub. A recent record for Ches. is Thurstaston in 1935 (W.G.W.).

**Phlyctænia terrestris**, Treit. A new locality for this local species is Witherslack, West. (A.E.W., W.G.C.).

**Microstega pandalis**, Hub. A specimen captured at Witherslack in 1937 (A.E.W.) confirms the previous record made in 1915.

**Scoparia cembræ**, Haw. In 1939 Mr. A. E. Wright bred a very dark melanic specimen from a larva found at Grange.

**Scoparia atomalis**, Doub. Recorded from Longridge, near Preston (J.B.H.), E.L. It has not occurred since.

**Pyralis costalis**, Fab. Specimens taken at light at Formby in 1938-9 by Mr. Fraser are an addition to Lancashire.

#### TORTRICINA

##### Fam. PHALONIDÆ

**Phalonia vectisana**, West. Burton Salt Marsh in 1935 (W.G.W.) is the first Cheshire record.

**Hysterosia inopiana**, Haw. This scarce species was taken at Gathurst, near Wigan, in 1935, by Mr. G. H. E. Hopkins.

##### Fam. TORTRICIDÆ

**Capua grotiana**, Fab. Another scarce species was found at Holker in 1935 (H.L.B., W.G.W.).

**Tortrix semialbana**, Guen. This, an addition to our list, was taken at Grange in 1918 and a single specimen bred in 1935 (A.E.W.).

**Cnephasia conspersana**, Doug. Mr. A. E. Wright found this local species rather common at Walney Island in 1939.

**Cnephasia nubilana**, Hub. Another addition to our faunal area. A single specimen at Witherslack in 1935 (A.E.W.).

**Peronea mixtana**, Hub. Exceedingly melanic forms of this common moth have been taken at Delamere and Lindow Common, Ches., by Messrs. Burrows and Michaelis in recent seasons.

*Fam. EU COSMIDÆ*

**Evetria purdeyi, Durr.** This species must be deleted from our list, the insect recorded from Burnley district, 1918, has now been shewn to be a pale example of *E. posticana*.

**Ancylis unguicella, L.** was taken at Witherslack in 1933 (Hop.).

**Ancylis diminutana, Haw.** also occurred at Witherslack in 1935-7 (A.E.W.).

**Eucosma obscurana, Steph. (raviana, H-S.)**. One at Grange in 1894 (J.B.H.) vide *Ent. Record*, V, p. 217.

**Eucosma ratzeburgiana, Ratz.** Mr. Wright has found this local species to be rather common at Witherslack. This and the following species are additions to our list.

**Argyroploce capreana, Hub.** Witherslack, one bred in 1937 (A.E.W.)

**Pammene gallicolana, Zell. (obscurana, Wilk.)**. Another recent addition to our list by Mr. Wright who records three specimens from Grange in 1934.

**Pammene juliana, Curt.** Recorded from Witherslack in 1935 (A.E.W.).

*TINEINA**Fam. GELECHIDÆ*

**Aristotelia tenebrella, Hub.** Local at Grange in 1934 (A.E.W.).

**Epithectis mouffetella, Schiff.** This local species occurred at Grange in 1934-5 (A.E.W.).

**Telphusa notatella, Hub.** A local and infrequent species, it occurred at Witherslack in 1935 (A.E.W.).

**Gelechia mundella, Doug.** Grange, occ., is a new locality (A.E.W.).

**Gelechia obscurella, Hein.** Our last record of this moth was in 1887. It occurred at Grange in 1935 (A.E.W.).

**Gelechia suppeliella, Wals. (peliella, Treit.)**. Not recorded for our counties since 1859. A specimen taken near Burnley in 1912 has recently been determined to be this species (W.M.).

**Phthorimæa seminella, Pierce & Metcalfe.** This species was discovered at Cark in 1935 by Mr. A. E. Wright who bred the moth from larvæ found feeding on sea rocket. For full description see *Entom.*, lxviii, p. 97.

**Phthorimæa costella, Westw.** Only of casual occurrence, it was recorded from Gathurst, near Wigan in 1935 (Hop.).

*Fam. COSMOPTERYGIDÆ*

**Mompha schrankella, Hub.** A recent record is Lindow Common, Ches., where it was taken by Mr. H. N. Michalis in 1938.

**Mompha fulvescens, Haw.** Grange in 1936 (A.E.W.) is an additional locality for this pretty species.

**Batrachedra pinicolella, Dup.** A single specimen, taken at Witherslack by Mr. Wright, was identified by E. Meyrick as this species. It is an addition to our list and Mr. Wright has presented me with the moth.

*Fam. ECOPHORIDÆ*

**Borkhausenia subaquilia, Stt.** Not recorded since 1890 until Mr. W. G. Warren found a specimen at West Kirby, Ches., in 1935.

**Depressaria flavella, Hub.** New localities are: Grange (A.E.W.), St. Annes (W.G.C.).

**Depressaria arenella, Schiff.** Occurred at Formby in 1938 (W.M.).

*Fam. ELACHISTIDÆ*

**Elachista gleichenella**, Fab. Grange in several years (A.E.W.).

**Elachista atricomella**, Stt. Recent records are: Ainsdale (W.M.); Grange (A.E.W.).

**Elachista serricornis**, Stt. Mr. Wright informs me that he has taken this species at Witherslack.

**Elachista scirpi**, Stt. New to our list. Occurs at Grange and Cark, Lanc. and Arnside, West. (A.E.W.).

**Elachista dispunctella**, Dup. Taken at Grange in 1937 (A.E.W.).

**Elachista triatomea**, Haw. Also occurred at Grange in 1937 (A.E.W.).

*Fam. HYPONOMEUTIDÆ*

**Argyresthia andereggella**, Dup. Taken at Grange in 1937 (A.E.W.). This confirms the old record in the Ellis List.

**Argyresthia semifusca**, Haw. This local species also is taken at Grange (A.E.W.) and Witherslack (*Id.*).

**Atemelia torquatella**, Zell. New to Lanc., this insect has been taken at Yealand, recorded in 1937 (A.E.W.).

*Fam. COLEOPHORIDÆ*

**Coleophora viminella**, Zell. Has been taken at Grange Holker and Cark (A.E.W.).

**Coleophora laricella**, Hub. Very c. at Holker and Grange (A.E.W.).

**Coleophora pyrrhulipennella**, Zell. Recorded from Witherslack by Mr. Wright.

**Coleophora troglodytella**, Dup. Grange in 1937 (A.E.W.) is confirmation of an earlier record in 1921.

**Coleophora laripennella**, Zell. (*annulatella*, Tengst.). Has occurred commonly at Grange (A.E.W.); and Formby (W.M.).

**Coleophora alticolella**, Zell. New to our list, this species was taken on Hampsfell, Grange, in 1938, by Mr. Wright.

**Coleophora glaucicolella**, Wood. A new locality for this species is Witherslack (A.E.W.).

**Coleophora adjunctella**, Hodgk. This scarce and very local moth has now been taken on the marsh at Cark and again at Humphrey Head Salt Marsh by Mr. Wright.

*Fam. GRACILARIADÆ*

**Lithocolletis scopariella**, Zell. Not recorded since before 1890, it occurred on the broom bushes in my garden at Formby in 1939 (W.M.).

**Lithocolletis pyrivorella**, Banks. New to our list, Mr. Wright bred a single specimen from a Grange larva in 1938.

**Gracilaria auroguttella**, Steph. The Cheshire locality, Wallasey, previously given, should be deleted; the moth was wrongly identified.

*Fam. PLUTELLIDÆ*

**Orthotælia sparganella**, Thunb. The only record since 1890 is Cark in 1937 (W.G.W.).

*Fam. TINEIDÆ*

**Teichobia verhueella**, Stt. This species was omitted from the revised list. It has only been taken in Lanc.

**Lanc.**—Old Lanes, near Cievelley (J.B.H., J.H.T.); Grange (J.H.T.), E.L. Grange, the larva is common on hartstongue fern (A.E.W.).

*Fam. ADELIDÆ*

**Nematois fasciellus**, Fab. Only recorded from Witherslack (A.E.W.).

## Fam. MICROPTERYGIDÆ

**Eriocrania sparmanella**, Bow. New records are, viz.:—

**Ches.**—Delamere and Thurstanston (W.G.W.).

**West.**—Witherslack (A.E.W.).

**Mnemonica unimaculella**, Zett. is also recorded from Witherslack (A.E.W.).

## SUMMARY OF SPECIES

	Total British Species.	Found in Lancashire & Cheshire	Percentage of Total.
RHOPALOCERA, Butterflies ...	68	52	77
HETEROCERA, Moths—			
<i>Sphingidæ</i> ... ... ...	41	28	68
<i>Bombyces</i> ... ... ...	111	70	63
<i>Noctuæ</i> (including <i>Deltoides</i> )...	332	258	77
<i>Geometræ</i> ... ... ...	286	217	62
<i>Pyrales and Crambidæ</i> ...	163	102	72
<i>Tortrices</i> ... ... ...	337	243	63
<i>Tineidæ</i> ... ... ...	754	475	71
<i>Micropterygidae</i> ... ...	14	10	71
<i>Pterophoridæ and Alucitinæ</i> ...	37	21	57
	2143	1476	69

The summary given above is compiled from the last edition of the *Butterflies and Moths of the British Isles*, by R. South, F.R.E.S., 1933, as regards the macro-lepidoptera; and from the *Revised Handbook of British Lepidoptera*, 1927, by Edward Meyrick, F.R.E.S. for the micro-lepidoptera.

The additional species recorded in this revised list total 121. These have been added since the Ellis List was published in 1890.

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NOTE.—In the paging of this list it will be noticed that the sequence is not regular. The butterflies being paged separately from the moths. In order to facilitate reference the former are distinguished by the prefix R. in the index. There is also an apparent omission of pages 37—68 in the text due to an oversight when going to press.

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