

INSECTS IN HAMPSHIRE, 1940.

By F. H. HAINES.

JANUARY was a very cold month, the tendency of the wind being N. and E. The days were often calm and dry until nearly the end, the temperature being slightly below zero on one or two nights. There was a little sun. (Rainfall, 3.14in.) February was also cold. Dull and wet, with a mild spell of short duration, it became colder again, with snow, towards the end. (Rainfall, 3.80in.) A chilly, sunless, fairly quiet March followed. It was dry at first, with some frosty nights, then wetter. (Rainfall, 3.38in.) The dry, dull, cold April became warmer latterly with less frost at night. (Rainfall, 1.02in.) May was a fairly calm, very dry, sunny month. Most days were hot, some cool, and a few nights frosty. (Rainfall, .79in.) June was hot, dry and sunny. Some days had a wind, and one or two were less pleasant because of its N.E. character. Certain nights towards the end were colder. (Rainfall, .33in.) Good days occurred in July, but it tended to be dull, windy and rather cold, with cool nights. (Rainfall, 3.03in.) August was a fine, dry month, beginning with dull days. Several nights were cold, even frosty, and occasionally by day it was windy and not warm. Good days came at the end. (Rainfall, .02in.) A rather windless, dry September followed, with a fair amount of sun, but it was somewhat cold, especially at night. (Rainfall, 1.96in.) October was a pleasant month with a fair rainfall (4.30in.) but an amount of sun. Warm at first, then colder, it ended warmer. Occasionally windy, night temperatures were not low. A mild, fairly sunny, but very wet November, with an occasional gale, succeeded. It was very cold at the end with frosty nights. (Rainfall, 7.91in.) December was a chill month with the wind often N.E. and a frost, nightly, until the end. A few rough days and a fair amount of sun distinguished the earlier part. (Rainfall, 2.72in.) 1940 was a good year for some butterflies and other insects, but often poor.

Collembola and **Thysanura** (Spring-tails, Bristle-tails, Silver-fish). C.M. found *Lepismodes inquinula* (Fire-brat) numerous in chinks of a kitchen hearth in a fairly new cottage at Lyndhurst.

Orthoptera (Earwigs, Cockroaches, Crickets and Grasshoppers). Most Grasshoppers, including Bush Crickets, lay eggs in the autumn and hatch in the spring. Owing to the fine weather of May and June the nymphs developed early. *Mecostethus grossus* L. was already very common and fully developed on 21st July, on Linwood Bog, disappearing earlier than usual. *Tettix* spp. (Ground-Hoppers) which seem to hibernate often as nymphs, and lay eggs when adult in the spring, were also adult very early. *Pholidoptera cinerea* L.,

too, was adult on the bushes round the bog on 21st July. Dr. Uvarov has recently shown (*Journal of Soc. of B.E.*, Vol. II, pt. 2) that, under *Tettix subulata* (*Acrydium*), two species have been confused: *Tettix subulata* L. and another species not before known as British, *T. ceperoi* I. Bol., to which many of the late W. J. Lucas's New Forest specimens belong. It is known abroad from N. Africa to W. Europe. The nymph of *Meconema thalassina* F. was well advanced on 4th July in Highland Water, New Forest.

Plecoptera (Stone-flies). C.M. took *Chloroperla torrentium* Pict. at Balmer Lawn on 31st May and 10th June and *Amphinemura cinerea* Oliv. *Cnania nigra* Pict. was on a window here, 13th April. The common species of *Nephelopteryx*, *Nemoura* and *Leuctra* were abundant here on 21st April. F.C.F. took *L. hippopus* Kemp. On 11th June a very large species of (?) *Perla* was on the brook.

Psocoptera (Leaf-lice and Book-lice). C.M. records *Amphigerontia fasciata* F. and *Stenopsocus stigmaticus* Imh. On 29th Sept., here, *Caecilius flavidus* St. was abundant, and was preyed upon by the larva of *Hemerobius humulinus* L. On 5th October swarms of *Caecilius fuscipennis* Latr. were on herbage near Dockens Water. Among other species noted were *Psocus quadrimaculatus* Latr., *P. bipunctatus* L., *P. nebulosus* St., *Elipsocus flaviceps* St. and *Kolbea quisquiliarum* Bertk.

Ephemeroptera (Mayflies). C.M. met with *Baetis rhodani* Pict. in New Forest.

Paraneuroptera (Dragonflies). A great hatch of the red dragonfly *Pyrhosoma nymphula* Sulz. took place from ponds and ditches on 1st May. On 3rd May a Willow Warbler was observed to be taking heavy toll of the soft teneral specimens as they emerged, repeatedly flying to catch them from a bush by the pond, and apparently eating the whole insect as no debris was found. It was evidently a passage bird, and had gone the next day. *P. nymphula* was exceptionally abundant until the end of July. On 31st May one was seen to attempt the capture of a good-sized Tipulid without success. *Gomphus vulgatissimus* L. was out, in numbers, on Oberwater on 13th May (FCF), when *Calopteryx virgo* L. female was seen here. Many *Libellula fulva* Müll. and *L. quadrimaculata* L. occurred at Hern on 3rd June (FCF). *Cordulegaster annulatus* Latr. was seen at Appleslade on 7th June and plentifully on 28th July. *Orthetrum caerulescens* F. was seen in Greenford Bottom, New Forest, on 14th June. *Oxygastra curtisi* Dale and *L. fulva* Müll. were in good numbers at Hern on 16th, when *Platycnemis pennipes* Pall. was emerging (FCF). The first was quite over by 7th July. On 19th June large numbers of *P. pennipes*, *P. nymphula*, *C. virgo* and *L. quadrimaculata*, but only a few *L. fulva* were seen by me at Hern. The burnt tracts are quickly getting green again and *Theriopectes* spp. and *Limnitis sibilla* L. have reappeared. *Aeschna juncea* L. was seen on 28th June, an early date, due to the fine weather, in August and on 5th October. On 31st July, at the "pumilio" bog, even late common species were much reduced, going over early owing to the very fine May and June. *Palaeobasis tenella* Vill. was hardly seen then. A, doubtless, female *O. caerulescens*, but coloured blue like the male, was seen dipping over the water of the bog ovipositing like a normal female.

Hemiptera: Heteroptera (Bugs). C.M. reports that he took the following, amongst other bugs, in New Forest between 30th May and 2nd August: *Eysacoris aeneus* Scop.; *Metatropis rufescens* H.S., Woodfidley; *Monanthia ciliata* Fieb.; *Piesma quadrata* Fieb., abundant at Lymington salterns with many *Serenithia laeta* Fall.; two *Ploiariola baerensprungi* Dohrn., rather recently added to the British list, beaten on 16th July from lichen on holly by Oberwater at Rhinefields: no more were found there after two hours' beating on 26th July; *Gerris paludum* F.; *Piezostethus cursitans* Fall.; *Microphysa pselaphiformis* Curt. with above *Ploiariola*; *Phytocoris longipennis* Flor.;

Lygus viridis Fall. ; *Orthocephalus mutabilis* Fall., on *Myrica*, Denny Heath ; *Halticus luteicollis*, Parkhill, New Forest, 7th June ; *Megaloceroea* (?) *psammecolor* Reut., Lymington Salterns. On 16th July I found here a male *Leucania impudens* Hb., still vigorous, with the rostrum of the bug *Picromerous bidens* L. only three-fifths grown inserted in the end of its body, being pushed and pulled about. On 28th July a number of the same species was attacking, and sucking dry, a large brood of larvae of the saw-fly, *Croesus septentrionalis* L., on poplar. On 28th August, the local *Chilacis typhae* Perr. was on the pond *Typha*.

Homoptera (Frog-hoppers, Cuckoo-spits, Plant-lice and Scale-insects). C.M. took a specimen of *Cicadetta montana* Scop., the New Forest *Cicada*, on stripped pine in Busket Wood by Bartley on 10th June (see E.M.M., Feb. and March, 1941, for an exhaustive paper on its British occurrences by C.M.). He records *Aphrophora salicis* Deg. ; *Bythoscopus refuscus* Fieb. ; *Eupteryx productus*, Mark Ash, 12th June ; *Allygus* (*Jassus*) *modestus* Fieb. ; *Oliarus leporinus* L., abundant only on sphagnum on the wettest bogs at Matley and Denny ; *Issus coleoptratus* Geoff. ; *Delphax* (*Liburnia*) *aubei* Perr., among many commoner species. *Livia juncorum* Latr. ; *Callipterus betulicola* Kalt. and the coccid, *Eriopeltis festucae* Fons., occurred at Appleslade. A dark *Siphonophora* again attacked laurels in Bournemouth (F.C.F.). On 26th Feb., a sp. of *Psyllidae* came to light on an evening.

Mecoptera (Scorpion-flies). *Panorpa germanica* L. was seen on 13th May. On 30th July a small *Megachile*, entangled in a web, was being sucked by a *P. communis* L., which had inserted its rostrum between two of the segments of the bee's abdomen.

Neuroptera (Alder-flies, Snake-flies, Brown and Green Lacewings). Several *Hemerobius stigma* St. roused from hibernation on 21st April. C.M. took *Micromus variegatus* Fab. in New Forest. *Eumicromus angulatus* St. was found again at Appleslade, but more sparingly. *Sialis fuliginosa* Pict. was rare here, but three were seen on 19th May. C.M. took *Raphidia notata* F. in New Forest, *Chrysopa flava* Scop., which was fairly plentiful here, and *C. prasina* Burm., which swarmed. *S. lutaria* L. appeared here on 22nd April, and *Chrysopa perla* on 13th May. The discovery of *Kimminsia rava* With. by F.C.F., at Bournemouth, on 18th May, added a fresh locality to the very few known for this species. On June 16th, a *Symphorobius* was taken by F.C.F., many frequenting the heavy shade of an oak by a ditch, and *Chrysopa ciliata* Wsm., *septempunctata* Wsm., *H. humulinus* L., *H. lutescens* F., and *K. subnebulosa* St. all occurred. A finely-marked *Wesmaelius quadrfasciatus* Reut. was found in Newlands on 7th July (F.C.F.), and several larvae of *C. vittata* Wsm. were found here on 28th July. On 11th Aug., *H. nitidulus* F., *Boriomyia betulina* Strom. and others were seen. On 29th Sept., three females of *Eumicromus angulatus* St. with eggs were beaten from birch and oak. The last neuropteran seen, in the open, was a male, *Conwentzia psociformis* Curt., flying strongly in the Bournemouth Gardens on 7th Nov. (F.C.F.). The abnormal numbers of *Chrysopa carnea* St. here and in the neighbourhood, indoors, in October and later, has been noted also in Surrey (Miss W. Flower).

Trichoptera (Caddis-Flies). *Hydropsyche instabilis* Curt. was beaten out of oak at Bank on 21st June (C.M.). *Hydropsyche* and *Rhyacophila* cases were abundant in Dockens on 21st April. *Limnophilus luridus* Curt. was common along the stream on 13th May, as was *Beraea pullata* Curt. on 14th July. *Glyptotaelius pellucidus* Retz. was, as always, extremely common. *Rhyacophila dorsalis* Curt., *Mystacides azurea* L., various *Sericostomatidae* and others were found by Dockens Water on 4th August. There was the usual autumnal abundance of *Stenophylax stellatus* Curt. and *Halesus radiatus* Curt.

Lepidoptera (Butterflies and Moths). *Gonepteryx rhamni* L. was seen at Linwood, 24th February (H.L.), several and one *Vanessa urticae* L. on

4th March : one in the house did not rouse till 31st March. *Vanessa cardui* L. was seen on 3rd April. Many *Vanessa io* L. were about on 6th April, and *V. urticae* paired. *Euchloë cardamines* L. appeared at Poulner and *Pieris rapae* L. at Bournemouth (F.C.F.) on 21st April. There were many *Pararge aegeria* L., some worn, on 22nd April. *Lycaena argiolus* L. was seen on 27th at Appleslade, and on 28th two full-grown larvae of *Melitaea aurinea* Rott. *Bupalus atomarius* L. was appearing on 29th. *Pieris napi* L. was noted on 3rd May, a fine *V. c-album* L. was flying round the house on 4th, *Pieris brassicae* was about on 5th, *Chrysophanus phlaeas* L. was common on 6th, *Eustrotia viridaria* Clk. was flying on the 7th, *Hesperia tages* L. and *Thecla rubi* L. on the 10th. *P. brassicae* was already in great abundance, again, on 13th, when *Adela viridella* Sc. was appearing. *Pseudopanthera macularia* L. was seen on the 15th and *Tyria jacobaeae* L. on 16th, and *P. megaera* L. and *Coenonympha pamphilus* L. on 17th : a great year for "Walls." *Tortrix viridana* L. was here on 19th and became abundant ; also *E. rubi* L. was flying in the afternoon sun ; *M. aurinia* was emerging, and a migrant, *Nomophila noctuella* Sch., was present. Orange-tips were abnormally plentiful. *Lycaena icarus* Rott. was out on the 27th, *Hesperia malvae* L. on the 29th, *Argynnis selene* Sch. on 30th, and *Leptomeris ornata* Sc. on 31st. On 3rd June a large female, *P. megaera*, appeared to be attacking a *Pyrrhosoma nymphula* ! On 7th June a newly-emerged, fully expanded male of *E. rubi* L. was seen, at evening, moving from a blade of grass or leaf to other leaves with a strange, tremulous motion on each site. No other was seen. *Limenitis sibilla* L. was out on 11th June. A fresh male, *Epinephele janira* L., was seen on 13th. A *Sphinx pinastri* L. was 4 feet up on a trunk of *P. sylvestris* on the outside of Appleslade Enclosure on 16th, and one was found at evening 6 feet up on the door of a garage here on 21st. A female, *Trypanus cossus* L., just out of pupa, was on a stem of *Juncus* by pond on 24th. Fresh *V. atalanta* were seen here on 30th. *E. hyperanthus* L. and *S. semele* L. were out on 1st July. *V. urticae* were entering the house for hibernation on 2nd and 3rd. *P. gamma*, either bred here or fresh immigrants, were in some numbers on 21st, when *Sparganothis pilleriana* Schiff. was found in great plenty on Linwood Bog. *P. brassicae*, doubtless both home-bred and fresh immigrants, were swarming, flying restlessly here over rough, grassy, sedge and rushy ground, practically destitute of their food-plants. *G. rhamni* were in wonderful numbers on August 1st, and *V. io* came in for hibernation on 3rd. *Peronea caudana* F. was abundant in many beautiful varieties on 4th. The August broods of *P. megaera* and *C. pamphilus* L. were appearing on 6th. The broods of the latter are very interesting and rather complicated, probably to safeguard against bad weather and seasons. Three nests of *M. aurinia* larvae were found on 12th, and others later. Practically all the larvae of *Biston betularius* L. found here produce black moths. A very fresh male *C. edusa* (croceus) was seen here, flying indeterminately, on 4th September, a very fine hot day, wind S.W. ; the species continued later. Male *Odonestis potatoria* L., apparently, were seen careering about like Fox moths during the daytime in brilliant weather on 6th. *V. cardui* was seen on 15th and subsequently. *Nymphalis io* is recorded from New Forest on 8th January, and male *G. rhamni* on 24th February (*Entom.* III, 40). A *P. megaera* was seen near Aldershot on 25th March (*Entom.* VI, 40). An *Eurois occulta* L. was taken at Bishop's Waltham on 3rd August, and an *Hyloicus pinastri* in Portland Dockyard on 1st August (*Entom.* II, 41) ; see note in *Entom.* VI, 40, on its spread in Hampshire.

The following are the rarer and more local of the species noted by C.M. in New Forest neighbourhood from 30th May to 2nd August, 1940 :—One or two *Thecla betuli* L. were seen on 20th June ; *Liethosia depressa* Esp. ; *Cybosia mesomella* L. ; *Sarothrips revayana* Scop., Lyndhurst pales ; *Coenobia rufa* Haw., Denny Bog ; *Hadena scabriuscula* L., Lyndhurst pales ; *Polia socia* Rott., Lyndhurst pales, 4th June ; *Bomolocha fontis* Thunb., Millyford Bridge ; *Shrankia turfosalis* Wocke., abundant ; *Hyphenodes costistrigalis* St., Rushpool ; *Aventia flexula* Schiff., Woodfidley ; *Catocala nupta* L., Lyndhurst, 27th July,

very early ; *C. sponsor* L., Frame Wood, 31st July ; *C. promissa* Esp., Denny ; *Eustrotia uncula* Clk. ; *Eucymatoge togata* Hb., Lyndhurst pales ; *Pseudoterpna pruinata* Hufn. ; *Asthena murinata* Scop., a few at Rammore Hill, 16th-20th July only ; *Boarmia consortaria* F. ; *Selidosema ericetaria* Vill., late ; *Pseudopanthera obscuraria* Hb. ; *Crocata strigellaria* Hb. ; *Metrocampa prosapiaria* L. ; *M. dolabraria* L. ; *Pachythelia villosella* Ochs. ; *Procris statices* L., common at Woodfidley on only 1st to 3rd June.

Micro-Lepidoptera ; *Salebria formosa* Haw. ; *Crambus craterellus* Scop. ; *Platytes alpinella* Hb. ; *Loxostege palealis* Schiff. ; *Cacoecia crataegana* Hb. ; *Peronea fissurana* Pierce, Lyndhurst pales, 15th July, and *P. boscana* F., also, and at dusk at Rushpool Wood ; *P. literana* L., rare on Lyndhurst pales, on only 18th to 21st July ; *Spilonota ocellana* F. ; *Eucosma nigromaculana* Haw. and *crenana* Hb. on Lyndhurst pales, 20th July ; *E. aemulana* Schlag. and *ratzeburgiana* Ratz. on Lyndhurst pales, 26th June ; *Argyroproctus corticana* Hb. ; *A. profundana* F., many ; *Pammene juliana* Curt., Lyndhurst pales ; *Platyedra vilella* Zell. ; *Oegocoma quadripuncta* Haw., one only on Lyndhurst pales, 16th July ; *Aegeria formiciformis* Esp., one, on bramble flowers, in Matley Bog, 24th June ; *Cosmopteryx druryella* Zell., on herbage in Buckshill Wood, 5th June ; *Borkhausenia unitella* Hb. ; *Simaethis pariana*, Denny Wood, 7th June ; *Choreutis myllerana* F., Busket Wood, 11th June ; *Swammerdamia heroldella* Hb., Lyndhurst pales, 10th July ; *Scythropia crataegella* L., whole nest of larvae in Busket Wood, 11th June ; *Gracilaria cuculipennella* Hb. on Lyndhurst pales, 16th July ; *Acrolepia pygmaeana* Haw., at dead Boletus-grown beech in Denny Wood, 14th June ; *Cerostoma horridella* Treits., Lyndhurst palings, 22nd June ; *Scardia boleti* F., Denny Wood ; *Tinea fulvimitrella* Sodof., Rhinefields, 15th June ; *T. parasitella* Hb., Denny and Lyndhurst pales ; *T. lapella* ; *T. corticella* Curt., many on trunk of fungus-grown beech, Denny Wood, 4th June to 18th July ; *Adela rufimitrella* Scop., Stubby, 27th July.

S. G. C. R. found the spring brood of *P. aegeria* decidedly scarce ; *M. jurtina*, unusually scarce ; *Aphantopus hyperanthus* L. in nothing like its usual numbers ; *A. selene* and *euprosyne* not at all in customary abundance ; *A. aglaia*, a few only ; *A. cydippe*, a great falling off in numbers ; *A. paphia* in about the same reduced numbers as last season ; *V. atalanta* in fair numbers in the autumn ; *V. cardui*, many immigrants seen, but the autumn brood not abundant ; *A. urticae*, uncommon as compared with 1939 ; *N. io* not plentiful ; *P. c-album*, in good numbers ; *L. camilla* scarce, less than in 1939 ; *H. lucina*, a few only ; *P. argus*, some colonies abundant, others much reduced ; *P. icarus*, scarce in both broods ; *L. argiolus*, better numbers than in 1939 ; *L. phlaeas*, autumn brood in very fair numbers ; *P. brassicae*, exceedingly abundant everywhere ; *C. croceus*, a small number in autumn ; *G. rhamni*, very plentiful in spring and autumn ; the Forest Hesperidae were in fair numbers. C.G.C.R. saw one specimen of the semi-nigrina var. of *L. camilla*, took a melanic specimen of *A. selene*, saw two extreme melanic specimens of the large Fritillaries : one of them a male *Paphia* nearly entirely black, the other appeared to be a black example of *aglaia*. The late E. C. Joy, while with S.G.C.R., took a very fine gynandromorph of *Plebejus argus*, in which the colouring of male and female were mixed on the wings. S.G.C.R. considered the season a very poor one. He says that a large number of *P. c-album* bred from the egg are much "ichneumonised" and that the parasites had got the upper hand. He has questioned the entirely beneficent action of ants on the larvae of certain "blues," said to be protected by them for their secretion. The larva of *arion* feeds on the ants' brood. Considering how inimical ants are to lepidopterous larvae, the question arises as to the age at which the secretion of the larvae becomes protective : if not while very young, the larvae would at first suffer greatly, presumably, from the ravages of the ants. Here, though ant-hills are numerous, "Common Blues" are not specially so.

A.F.L.B. found the birches full of *Brephos parthenias* L. on 24th March. He took *Euclidia* mi Cl. and *glyphica* L. in a riverside meadow on 13th May.

He found several *Panemeria tenebrata* Scop., a species new to his locality, on 14th. *A. selene* was on the wing on the 16th and *Anarta myrtili* out on 17th. *L. aegon* on the 13th June and *L. sibylla* on the 18th testified to the early season, as did the presence of *A. paphia* and a worn male *A. iris* in the usual lane by a wood on the 27th. The last flew back at A.F.C.B., perhaps, as Barrett suggests, from curiosity. A probable *C. croceus* was seen on the 1st July. He took an *A. iris* flying low at 4 p.m. (B.S.T.) in the same place as the species was seen in on the 27th June, on the 6th of July. *V. cardui* was seen on 10th September, but was found scarce. A perfect *Agriopsis aprili* L. was on a meadow fence on the 29th. An apparent brown leaf falling was found to be a descending *V. c-album*, a good example of mimicry, as A.F.L.B. says. He considered it a good year for butterflies, but, lacking humidity, poor for moths.

L.B.H. tells me that a *Limemitis sibilla* was seen in Great Portland Street, W., on the 6th July. A.J.P. had five pupae of *A. atropos* L. brought to him, and heard of others. He saw both *P. c-album* and *C. croceus* in September. C.B. had a freshly emerged *A. atropos* brought to him on 21st September, and a pupa previously. R.W.C. comments on the great scarcity of moths and butterflies, excepting "Whites," in his Ringwood garden all through the summer.

Coleoptera (Beetles). A curious assembly of a smaller species of *Cantharis* (*Telephorus*), with dark elytra, was seen engaging in an almost dipterid dance in the brightness of the sinking sun on 6th June. A *Melolontha vulgaris* F. was not certainly seen until the early evening of 7th June. A curious capture was that of *Corymbites cupreus* F., which is unusual in the south, in Bourne-mouth, by F.C.F. *Agabus guttatus* Payk., *Corymbites quercus* Gyll. and its var. *ochropterus* St., *Haplocnemus impressus* Marsh., *Deporaus megacephalus* Germ., *Barypeithes araneiformis* Sk., *Orchestes stigma* Germ. and *Dorytomus tortrix* L. were noted here.

C.M. records amongst many others:—*Carabus arvensis* under a log in Busket Wood on 10th June; *C. nitens* L., one, Matley Bog; *Calosoma inquisitor* L.; *Notiophilus rufipes* Curt., Busket Wood, 10th June; *Pterostichus lepidus* F.; *Calathus piceus* Marsh.; *Anchomenus oblongus* Sturm.; *Bembidium 5-striatum* Gyll.; *B. flammulatum* Clarv., by Brockenhurst dump-pond; *Helophorus affinis* Marsh.; *Tectura cuspidata* Er.; *Ilyobates nigricollis* Payk.; *Ocalea picata* St.; *Tachinus bipustulatus* F. at Cossus-oak; *T. elongatus* Gyll., New Forest boundary, Brockishill, 2nd July; *Philonthus quisquiliarius* Gyll.; *P. chalcus* S.; *P. decorus* Gr.; *Hister succicola* Th., at sap, common in June, rare in July; *Acritus atomarius* Aub., one, 14th June; *Paromalus flavicornis* Hb.; *Scaphidium 4-maculatum* Ol., myriads in fungi in Denny Wood; *Cryptarcha strigata* F.; *Meligethes umbrosus* Sturm.; *Thymalus limbatus* F.; *Ditoma crenata* F.; *Litargus bifasciatus* F., two under beech bark, Busket and Denny Woods; *Cerylon ferruginium* St.; *Pediachus dermestoides* F., three on one prostrate beech trunk at Emery Down on 9th July; *Ips quadriguttata* FF., on same tree, also rare in New Forest. *Aphodius porcus* F., two swept in Stubby on 1st June; *Melasis buprestoides* L., Denny Wood and Minstead; *Melanotus castanipes* Payk.; *Corymbites metallicus* Payk., swept from Juncus in swamp, Woodfidley, 24th June; *Tillus elongatus* L.; *Emnearthron cornutum* Gyll.; *Cistela ceramoides* L., one in Denny Wood; *Mycetochares bipustulata* Ill., two on sugar in Holmhill and Denny; *Clinocara undulata* Kr.; *Lissodema 4-pustulata* Marsh.; *Oedemera lurida* Marsh.; *Tetratoma fungorum* F.; *Ischnomera coerulea* L.; *I. sanguinicolis* F., one on *Oenanthe crocata* flowers, Matley Bog, 4th June; *Tomoxia biguttata* Gyll., common, as always, in Denny; *Donacia discolor* Panz.; *Cryptocephalus bipunctatus* L.; *C. parvulus* Mull., one, Matley Bog, 25th June; *Phyllotreta nodicornis* Marsh.; *Aromia moschata* L., Matley, 2nd July, very early; *Asemum striatum* L., one, under log, Ramnore; *Callidium variabile* L., at sap, Denny; *Pachyta collaris* L., at sap, Denny; *Anoplogera sexguttata* F.; *Leptura scutellata* F.; *Strangalia nigra* L.; *Mesosa nubila* Ol., one, on prostrate beech-trunk in Denny; *Apion armatum* Gers., swept from Yellow Vetchling at Woodfidley, NEW to Britain; *Orchestes iota*

F.; *Gymnetron antirrhini* Payk.; *Cionus thapsus* F.; *Phytobius comari* Hb., on *Polygonum* in Matley Bog, just as in August 1927; *Xyleborus dispar* F., in beech-bark at Emery Down; *X. saxeseni* Ratz., on pine at Woodfidley; *X. dryographus* Ratz., on pine at Bank, 18th June; *Tomicus nigritus* Gyll., Denny Wood, 7th June.

E.M.R. found *Gnorimus nobilis* L. quite frequent on Elder flowers about Boldrewood.

Diptera (Flies). *Therioptectes bisignatus* Jaen. appeared here on 15th May. *Xanthogramma citrofasciatum* Deg., was common on 27th May. *Merodon equestris* F. frequented flower-beds on 1st June, *Anthrax fenestratus* Fln. was on paths here on 5th June, and *Haematopoda pluvialis* L. on 25th June. The season was specially characterised by the great annoyance caused by species of *Ceratopogon* and other small midges which appeared in swarms not only early every evening, but at other times too, lasting long after sunset. *Tabanus sudeticus* Zlr. was well out in the Forest on 29th June. *Acroceras globulus* Pz. was taken in Newlands by F.C.F. on 7th July. *Tabanidae* in the New Forest seemed to go over early; only a *Tabanus* and a *Chrysops* were seen on the Oberwater bogs on the 31st July. The larger *Tachinids* were common on the *Angelica* on 11th August. A Hornet was seen on *Heracleum* with *Echinomyia fera* L., as prey, on 17th August. *E. grossa* L. had almost died off by the end of August. A rather late *Ischyrosyrphus glaucius* L. was seen on *Angelica* on 3rd September. *Eristalis tenax* L. was prospecting chinks for hibernation on 18th September. *Pollenia rudis* F. (Cluster-fly) was assembling in great numbers in a room for hibernation on 11th October.

C.M. found, as well as many commoner species:—*Macrocera fasciata* Mg.; *Palpomyia serripes* Mg. on Myrica at Roman Bridge; *Aedes vexans* Mg.; *Limnobia annulus* Mg., pair, Denny Wood, 8th June; *Limonia masoni* Edw.; *Dolichopeza sylvicola* Curt., flying, Matley Bog; *Nemotelus pantherinus* L., Lymington Salterns; *Lepidomyia melanocephala* F.; *Dolichopus wahlbergi* Ztt.; *Chrysogaster macquarti* Lw.; *C. chalybeata* Mg.; *Chilosia soror* Ztt.; *C. mutabilis* Fln.; *Melanostoma ambiguum* Fln.; *Ischyrosyrphus laternarius* Müll.; *Xanthandrus comtus* Harr., hovering in shade of beech trees, Boldrewood, 2nd July; *Pelecocera trincta* Mg., several, Woodfidley and Matley Bog, 27th-29th July; *Sphegina clunipes* Fln., one, Matley Bog; *Myiolepta luteola* Gm.; *Xylota tarda* Mg.; *X. florum* F.; *Microdon latifrons* Lw.; *Physoccephala nigra* Deg., Woodfidley, 8th June; *Macquartia praefica* Mg.; *Myiocera carinifrons* Fln.; *Metopia campestris* Fln.; *Allophora hemiptera* F., Matley Bog, *Oenanthe* flowers, 20th June; *Phaonia perdita* Mg.; *Hydrotaea borussica* Stein., hovering under beeches in Boldrewood, 2nd July; *Mycophaga fungorum* Deg.; *Pogonomyia alpicola* Rnd., flying at beech, 11th June; *Eustalomyia histrio* Ztt.; *Cordylura pudica* Mg.; *Scatophaga decipiens* Hal.; *Tetanocera reticulata* F.; *Lonchaea aenea* Mg.; *L. chorea* F.; *Sapromyza sordida* Hal.; *S. decipiens* Lw.; *Anthomyia flavipes* Ztt.; *Anthraxophaga strigula* F.; *Borborus sordidus* Ztt., on a Lyndhurst window.

E.M.R. reported *Calliprobola speciosa* Rossi. as quite frequent about old rotten beeches in Mark Ash.

C.M. found *Fannia canicularis* L., a genuine house-fly, flying in a dug-out in Matley sand-pit, a mile from any house. Long ago in *The Times*, September 10th, 1901, I alluded to the chance of pure mechanical, apart from the biological, carriage of disease by insects occurring. In E.M.M., III, 1914, I expressed doubt as to whether the campaign against the house-fly, that succeeded, was not overdone. There seemed too little correspondence, or other proof, between diseases, even enteric diseases, and the increased number of a particular insect. Such diseases as anthrax in cattle would surely spread more disastrously than is the case were the "fly" threat not exaggerated. A dust-storm must bring "germs" and dirt to food and human environment in far greater bulk than could a house-fly, though it has been alleged that pathogenic bacilli have been discovered both in and on it, under abnormal epidemic conditions, especially

abroad. Ever since the idea was mooted I have looked for direct evidence of a single case of disease that had been thus carried by house-flies under normal conditions. I approached the question practically as a field naturalist, and not only theoretically as a laboratory worker is apt to do. The conclusion arrived at is that no undue time or energy should be given to dipterous massacre in everyday life: until its real necessity, founded on much more than vaguely circumstantial evidence, is forthcoming. We are always invited to believe that every place on which a house-fly has settled was injurious matter. In my observation it is generally a harmless household product, a tree, or a flower. The "germ theory" of disease, itself, is becoming suspect: the identification of organisms or virus is so doubtful, their presence so erratic and so uncertain in illness, and the chance of their being but the guests, not the cause, of disease so great, that scepticism appears justified. Securing flies in a district where an epidemic is already raging and finding such infected does not necessarily incriminate them as normally dangerous carriers, any more than man, animal or motile inanimate object. The larvae of *Musca domestica* are found in manure. The larvae of *Fannia cunicularis* have been found in snails, humble-bees' nests, cheese and other lodgings, while *F. scalaris* F. is an excrement feeder. Many flies are certainly scavengers and, as such, are useful in nature.

Hymenoptera (Sawflies, Gallflies, Ichneumon-flies, Ruby-tailed flies, Ants, Wasps and Bees). *Bombus lucorum* L. was on the willows on 24th March, and *B. terrestris* on 2nd April. Many queen wasps were about, and a queen hornet at Linwood, 5th May (HL). *Odynerus parietum* L. was forming its cells and storing them with green larvae in the hollow handle of a saucepan here on 17th June. Males of the genus *Ichneumon*, so common in later summer, have been exceptionally numerous here in June. Many males of *Mutilla europaea* L. were seen on the wing and settling on paths, though the day was not particularly warm nor sunny on 17th June, the abnormal plenty continuing for a few days. A smaller species of *Megachile* which had got entangled in a spider's web was being sucked by a *Panorpa communis*, which had inserted its proboscis between two of the segments of the abdomen, on 30th July. Wasps and hornets were not specially numerous this season. *Andrena cetti* Schr. was in fair numbers on *S. succisa* on 12th August. *A. argentata* Sm. was common on the heathy hill and a male of *A. afzeliella* K. was taken on 27th August. A queen *V. crabro* was prospecting the house for hibernation on 29th September. Amongst Sawflies specially noticed were *Allantus omissus* Forst., *Pristiphora crassicornis* Htg., *Micronematus monogymiae* Htg. and *Entodecta pumilus* Kl. Amongst parasitic Hymenoptera may be mentioned:—*Cratichneumon varipes* Gr.; *Phaeogenes rusticatus* Hm.; *Habrocryptus alternator* Gr.; *Panargyrops tenuis* Gr.; *Phygadeuon rusticellae* Bridg.; *Cratocryptus subpetiolatus* Gr.; *Glypta evanescens* Ratz.; *G. fronticornis* Gr.; *Thymaris pulchricornis* Br.; *Homocidus biguttatus* Gr.; *Smicroplectus iucundus* Holm.; *Paniscus latungula* Thoms.; *Meteorus jaculator* Hal. (atypical); *Pygostolus sticticus* F.; *Liophron muricatus* Hal.; *Eubadizon extensor* L.; *Torymus erucarum* Schr.; *Eucomyx scutellata* Swed.; *Spilomicus tripartita fuscipes* Kieff., 21st April; *S. minor* Kieff., 28th July, and *Belyta nigriventris* Thoms., 29th September.

C.M. gives a list of Sawflies which includes *Trachelus tabidus* F.; *Holcocneme crassa* Flh. swept in Stubby, 1st June; *Tomostethus dubius* Gm.; *Athalia scutellariae* Cam. at Skullcap by Oberwater and Matley Bog. Amongst Aculeates were *Leptothorax interruptus* Schen.; *Methoca ichneumonides* Latr., male flying at Bank, 3rd June; *Pompilus approximatus* Sm., one running round dry cow-dung on sand at Matley, 29th July; *Psen pectinipes* V. d. L.; *P. equestris* F.; *Crabro serripes* Pz., one, from its burrow in a dead standing beech in Denny Wood: it clung so hard with its jaws as to be decapitated without relaxing hold!, 8th July; *Odynerus laevipes* Shuck.; *Sphecodes divisus* K. and two *Nomada flavoguttata* K. flying with abundant *Andrena argentata* in Matley sandpit, 2nd-29th July; *Nomada germanica* Sm., Woodfidley, 8th June, and *Anthophora quadrimaculata* Pz.

The following *Parasitica* were noted by C.M. :—*Decatoma minuta* Wlk., several sitting in Tormential flowers, Matley Bog, 19th July ; species of *Proctotrypes*, *Loxotropa*, *Paramesius*, two species of *Diapriids* and *Anteon* ; *Hyptia minuta* F., one male swept in Stubby, 27th July ; *Foenus aubeilii* ; *Figites anthomyiarum* Bouch., two in cow-dung at Matley Bog, 24th June ; *Calyptus puber* Hal., flying at dead beech in Denny Wood, 27th June ; *Histeromerus mystacinus* Wsm. on beech log, Denny Wood ; *Ascogaster ratzeburgi* Marsh. on *Oenanthe* flowers, Matley Wood ; *Microgaster wesmali*, at *Boletus*, Denny Wood ; *Microdus calculator* F., one female swept in Matley Bog ; **Coelichneumon impressor* Ztt. ; **Barichneumon bilunulatus* Gr. ; **Ctenichneumon fossorius* Gr. ; **Platylabus nigricollis* Wsm. ; **Cubocephalus brevicornis* Tasch. ; *Microcryptus basizonius* Gr., one male at Woodfildley, 27th July ; *Cecidonomus inimicus* Gr. ; **Pezomachus impotens* Forst. ; **Nematopodius formosus* Gr., females at dead beech in Denny Wood, 27th June and bramble flowers in Ramnore, 16th July ; *Habrocryptus alternator* Gr. ; *Pimpla didyma* Gr. ; **Glypta lugubrina* Hlmgr. ; **Lissonota carbonaria* Hlmgr. ; **Phthorinus compressus* Desv., at Cossus-oak in Denny Wood, 17th June ; *Mesoleius formosus* Gr. ; *Acrotomus sex-cinctus* Gr., in Stubby, 1st June ; **Casinaria orbitalis* Gr. ; **Cremastus bellicosus* Gr., at heather at Matley, 25th July ; **Pectenella latungula* Thoms. ; *Ophion minutus* Kriech.

It may be added in concluding this list of Hampshire parasites that the campaign against the larvae of *P. brassicae*, or other insect pests, should be carried on with discretion. The larva, having eaten its fill, is probably already doomed, and will be found to contain great multitudes of ichneumon, braconid or other parasites, which will prevent a repetition of the plague in the following season. Its premature death means the sacrifice of countless friends instead of only the death of a now impotent enemy.

I.Y. writes that "Near Burley I found several colonies of *Andrena ferox* Sm., and discovered that each colony had a single entrance hole like *A. bucephala* St. Unfortunately I did not see any males."

R.C. comments on the extraordinary abundance, again, of the "big black wood Ant" all over the Ringwood district, and extending to Bournemouth, for three days at the beginning of August : presumably *Acanthomyops niger* L. *Ichneumonidae* asterisked are additions to the Hampshire List (1931).

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