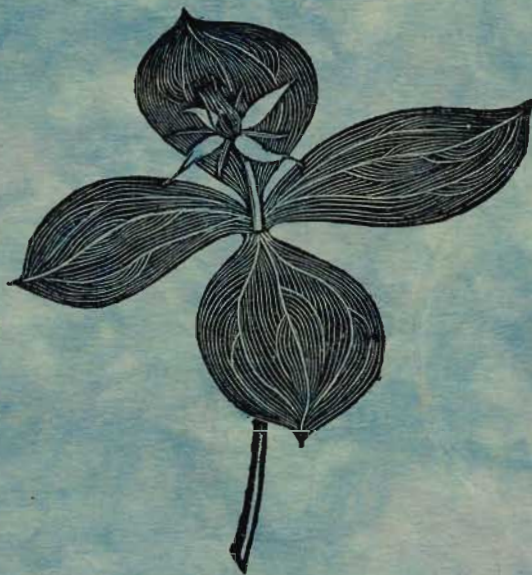


The Reading Naturalist

No. 10



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THE READING NATURALIST

No. 10 for the Year 1956 - 57

The Journal of

The Reading & District Natural History Society

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Editorial

The year 1958 will be remembered as the one in which the Congress of the South-Eastern Union of Scientific Societies visited Reading, and the Society may take pride in its contribution towards the outstanding success of that occasion. How great the success and enjoyable the occasion those who were present at any of the sessions will already know, and those who were not can learn from the account that appears elsewhere in this Journal.

In 1956 - 57, also, the Society had a satisfactory year, and a brief review of its activities is given among our other regular features and articles. The number of contributors has been increased this year, and botanists make a welcome reappearance among them. To all of these, and to Mr. Parry for the meteorological data, we offer warm and appreciative thanks. We also acknowledge with gratitude a generous grant towards the cost of the Journal from the Cultural and Entertainments Committee of the Reading and County Borough Council. Finally, we are indebted to the Director of the Museum and Art Gallery for granting facilities for the production of the Journal and to those members of the Museum Staff who, in making use of these facilities have given so generously of their time and labour.

Correction: We regret that the previous number of the Reading Naturalist was described on its title page as "No. 9 for the Year 1956-57" instead of "No. 9 for the Year 1955-56".

Meetings and Excursions in 1956-57

In addition to the Annual General Meeting, the Presidential Address, the Honorary Recorder's Reports and Members' Exhibits, the eleven winter meetings held during the 1956-57 season included two film shows, one, by Mr. W.A. Smallcombe, of Nature Films and the other of the Shell Company's film, "The Rival World". The remaining meetings were devoted to lectures, of which the titles included "Rubber", by Mr. G. Appleton, "From Cape to Cairo", by Miss L. Phillips, "The British Salmonidae", by Air Marshal Sir Robert Saundby, and "A Farm in Portugal", by Dr. F.B. Hora. Dr. W.E. Swinton was unfortunately unable to give his promised lecture on "The Birth of the Dinosaurs", but Professor A.H. Bunting took his place at short notice with a talk on "Applied Botany in the Sudan Rainlands".

Attendance at many of the summer meetings was again reduced by bad weather, and the visit to Fawley arranged for July 27th was cancelled owing to the bus strike. The other excursions and, in brackets, the number taking part, were:-

April 13th, Heckfield Place, for spring bulbs, trees and shrubs, by kind permission of Mrs. Colin Davey, (23); April 24th, Collins End (5); May 4th, Padworth Gully (12); May 15th, Pincent's Farm Gravel Pits, an evening walk (8); May 25th, Nunhide Lane, Sulham, pond and river biology (24); June 5th, The Co-Operative Society's Glasshouses, by kind permission (3); June 15th, an evening riverside walk from Sonning (4); June 26th, an evening visit to Reading University Agricultural Botanical Gardens (11); July 6th, the Blue Pool (9); July 17th, Tilehurst Potteries, for fresh-water biology (9); August 7th, Downs above Streatley, for chalk flora (6); August 17th Thames-side walk and steamer trip (7); August 28th, Hazeley Heath, for bog flora; September 7th, Englefield Park for trees and birds, by kind permission of the Lord Lieutenant of the County; September 18th, Streatley Hill, for chalk flora (2); September 28th, Kiff's Green (9); October 5th, Kingwood Common, Fungus Foray (15-23).

The S.E.U.S.S. Congress Visits Reading

By S.Y. Townend, B.Sc.

The Reading Natural History Society and the Department of Zoology of the University of Reading were, from April 9th - 11th this year, joint hosts to the South-Eastern Union of Scientific Societies at their 63rd Annual Congress.

More than 100 delegates and members met to participate in a very full and varied programme of talks and excursions arranged by a local committee.

On the first afternoon there were two alternative excursions. Mrs. Arthur Clark led one party on a tour of Reading Abbey Ruins followed by a visit to the Abbey Gateway to see the Abbey Paintings and an exhibition of books and engravings illustrating the history of Reading. While in the Ruins the party was met by the Reading Conservative Association Ladies' Choir who gave a delightful rendering of 'Sumer is Icumen in', the 13th Century Canon so closely associated with the Abbey.

The other party went on a conducted tour of Messrs. Sutton and Sons Ltd., The Royal Seed Establishment, where they were shown the Grass Advisory Station, the Vegetable Plant Breeding Station and the glasshouses by Mr. Noel Sutton.

The Young Naturalists' Evening took the form of a Brains Trust with a team comprised of Mr. Maxwell Knight, Dr. W. F. Swinton, Dr. Laingmaid and Mr. K. E. L. Simons with Mr. P. E. Howard presiding. No fewer than 217 questions were received from Peabling school children but only about 12 selected ones could be dealt with in the time. If the audience was not as large as it might have been, because the Congress took place during the school holidays, it was certainly a keen one. Four prizes of books, autographed by the team, were awarded for questions. The best question was from an under-11, G. A. Leech (Emmer Green Primary School). The other winners were Andrew Taggey (George Palmer Junior School), Lynn Parry (Westwood School) and Lionel Haynes (Bottle Junior School).

A Civic Reception was given to members of the Congress at the Town Hall where they were received by the Mayor (Alderman T. S. W. Smart), the Mayoress (Miss Frances Smart) and Mr. Maxwell Knight deputising for the President, Dr. R. V. C. R. Woolley, the Astronomer Royal. Guests were able to inspect selections of Borough Charters and Corporation documents and were entertained by a programme of music by the Reading Light Orchestra.

After the reception the Mayor invited the party to accompany him to the Museum where they were welcomed by the Chairman of the Cultural and Entertainments Committee. The Director of the Museum and Art Gallery introduced the magnificent colour film made in Kenya, 'Kinship of the Creature', after which members were able to view the collections which included a special entomological display.

On the second day the Botanical address was given by Dr. F. B. Hora on 'Toadstools' and was followed by the Archaeological one by Dr. M. Aylwin Cotton, O.B.E., F.S.A. : 'Silchester Archaeology'.

In the afternoon there were, again, two excursions. Silchester Common and Pamber Forest were visited by one party under the leadership of Dr. Hora while the other group went to the site of the Roman City, Calleva Atrebatum, at Silchester and also to Pamber Priory. This archaeological excursion was led by Mr. J. Wymer and Miss E. Swadling.

The highlight of the Congress was surely the address entitled 'All the World's a Stage' given that evening by Professor H.L. Hawkins, D.Sc., F.R.S., F.G.S. after his installation as President.

On the morning of the third day there were talks by Professor Hawkins on 'Local Geology' and by Dr. C.C. Balch on 'The Birds of Reading'. Both of these were introductions to the afternoon Geological and Ornithological excursions which were to Kingsclere and Aldermaston Gravel Pits respectively.

It seemed a little optimistic to take more than 60 people on a bird watching expedition but Dr. Balch made no promises about possible species which might be seen. In spite of this and a bitter east wind the group saw, among other birds, several early Swallows and Sand Martins before being finally rewarded by an excellent view of a small flock of Golden Plover in flight.

The Annual Business Meeting of the Union was held in the evening and with this the Congress was concluded except for two informal excursions next morning. Mrs. A.M. Simmonds took a small group on a walk along the Thames to Mapledurham and Pangbourne while the less energetic visited the Museum of English Rural Life and the new University site at Whiteknights Park.

All meetings were held in the University of Reading and throughout the Congress there was an exhibition staged in the Zoology Laboratory. This exhibition included contributions by Reading Aquarists' Society, the Astronomers' Colloquium, the Microscopical Society, Battle Junior School and several individual members of the Natural History Society.

Accommodation for many of the visiting delegates was provided by the University at Mansfield Hall.

Fortunately the Meteorological Office was kind and no excursion was upset by unfavourable weather conditions.

Altogether, arrangements for all meetings and excursions went extremely smoothly and the Natural History Society and the Zoology Department can be well pleased with their efforts especially as the General Assembly of the Union accorded it the best Congress to date.

South-Eastern Union of Scientific Societies

The S.E.U.S.S. will hold a Joint Congress with the South-Western Union at Bournemouth during the period May 15th-23rd, 1959, at which its programme will be concentrated in the three days, May 16th-18th. Members of this Society wishing to attend can obtain further information from our Secretary, Mrs.A. Fishlock.

STATION - READING UNIVERSITY

HEIGHT ABOVE SEA LEVEL - 148 ft.

YEAR 1957

		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	YEAR
MEAN DAILY TEMPERATURE °F.	MAX. MIN. MEAN.	47.7 37.4 42.7	43.2 37.6 42.9	53.6 42.8 49.7	60.5 41.5 49.2	73.1 43.6 52.1	73.1 50.6 61.9	71.2 55.9 63.9	69.3 53.5 61.4	69.2 49.7 56.1	59.4 46.1 52.7	48.7 39.7 44.2	45.2 34.4 39.8	58.3 44.4 51.4
EXTREME TEMPERATURES °F.	E. MAX. DATE	53 1,5,26	56 3	65 12,13	68 5	73 31	90 29	87 6	81 5	70 22	68 13,14	55 4	55 7	90 Jun. 29
	E. MIN. DATE	29 23	29 18,19	29 4	52 12	34 6	40 12	49 11	44 27,30	37 30	34 20	28 24	22 17	22 Dec. 17
	E. GRASS MIN. DATE	43 23	19 16,21	19 1	23 12	24 6	32 6	40 11	35 27	33 30	26 20	21 24	15 17	15 Dec. 17
DAYS WITH " "	FROST	5 18	5 16	1 8	0 7	0 4	0 0	0 0	0 0	0 0	0 3	1 9	9 19	21 84
SUNSHINE HRS. (SEED TRIAL GROUNDS)	SUM. % POSS. DAILY MEAN	51.8 20 1.67	69.1 25 2.47	99.5 20 3.11	153.0 37 5.10	190.7 41 6.44	273.9 53 9.30	153.3 32 5.42	155.4 34 5.01	99.5 26 3.28	79.7 24 2.57	64.6 24 2.15	43.5 18 1.40	1449.1 33 3.97
PRECIPITATION	AMOUNT	1.43	3.11	1.37	0.83	1.37	1.99	3.90	2.02	2.84	2.11	2.37	2.27	25.23
	RAIN DAYS	15	17	14	10	12	11	10	15	18	14	8	18	168
	MAX. RAIN IN 1 DAY	0.42	0.62	0.40	0.40	0.23	0.74	0.59	0.57	0.68	0.51	0.93	0.59	0.93
	DATE	31	7	9,26	17	11	9	4	12	23	16	2	12	Nov. 2
	LONGEST RUN OF CONSECUTIVE RAIN DAYS	5	7	6	2	7	4	6	5	5	4	5	8	8
	LONGEST RUN OF CONSECUTIVE DRY DAYS	6	4	5	10	7	7	4	5	4	9	9	4	10
	SNOW OR SLEET DAYS	1	1	0	0	0	0	0	0	0	0	0	0	2
	DAYS SNOW LYING	0	0	0	0	0	0	0	0	0	0	0	0	0
VISIBILITY	FOG	3	2	2	0	0	0	0	0	1	3	2	7	20
THUNDERSTORM	DAYS OF THUNDER	1	0	0	0	2	4	5	1	0	0	1	0	14
ACTIVITY	DAYS OF HAIL	1	1	0	0	0	0	1	0	0	0	2	0	5
AVERAGES														
MEAN DAILY TEMPERATURE °F.	MAX.	47.2	46.3	51.8	56.9	63.7	60.2	72.3	71.5	60.8	58.8	50.2	45.7	58.2
	MIN.	34.3	34.5	33.1	40.1	44.8	50.5	54.1	53.4	49.9	43.8	38.3	36.3	42.9
	MEAN	59.8	40.4	44.0	48.5	54.3	59.9	63.2	62.5	58.3	51.3	44.3	40.5	50.6
PRECIPITATION	AMOUNT	1.0	1.64	1.71	1.46	1.63	1.95	2.03	2.09	1.70	2.98	2.30	2.59	24.0
	RAIN DAYS	15	13	13	12	10	10	12	13	11	15	15	15	153

Weather Records for 1957

Data supplied by M. Panny.

The data refer to Reading University Meteorological Station except those for sunshine, which were recorded at Sutton's Seed Trial grounds. A "rain day" is a day on which rainfall exceeds only 0.01 ins. The temperature averages refer to the period 1921-50 and the rainfall averages to the period 1881-1915.

Extracts from the Recorder's Report for Botany, 1956-57

By K.I. Butler

The nomenclature followed is that of Clapham, Tutin & Warburg in "Flora of the British Isles" and Hubbard in "Grasses". The area covered is mainly that within a ten-mile radius of Reading, but an exception is made for the discovery by J. Hodgson at Frensham Great Pond of Poa bulbosa var. vivipara Koel. (in which the upper part of the spikelet is replaced by a miniature plant). This is a new county record for Surrey.

Several plants of interest were noted at the Society's Field Meetings.

Poa chaixii Vill. (Broad-leaved Meadow Grass), Padworth Gully, May 4th.

Drosera rotundifolia L (Sundew) and D. intermedia Drev & Heyne, (Long-leaved Sundew) plentiful, and Lycopodium inundatum L (Marsh Clubmoss), scarce, Hazeley Heath, August 28th. Rhynchospora alba (L) Vahl. (White Beak-sedge) was also seen.

New records for the Kingwood area at the Fungus Foray on October 5th were Cortinarius flexipes, C. hinnuleus, Crepidotus mollis, Galera hypnorum, Hygrophorus cantharellus, H. chrysaspida, Lactarius tabidus, Lenzites betulinus, Lycena galericulata, M. epipterygia, Panoeolus acuminatus, Pholiota squarrosa, Psilocybe semilanceata, Tricholoma virgatum.

Members' Records

Equisetum telmateia Ehrh. (Great Horse Tail), on the main road just east of Woolhampton - possibly the locality reported by Dr. Williams in 1953 (J. Hodgson).

|| Ceterach officinarum D C (Rusty Back Fern), plentiful on a wall between Bradfield College and Upper Basildon, June 19th (The Recorder).

Thelypteris palustris Schott. (Marsh Shield Fern), one clump at Hazeley Heath. (J. Hodgson).

Fumaria vaillantii Lois, one of the rare Fumaria of arable land, usually on chalk. Near Pepper Lane. (G. Hancock).

Coronopus didymus (L) Sm. (Lesser Swine Cress). Not nearly so frequent in inland districts as C. squamatus (Forsk) Aschers (Swine or Wart Cress). In a gravel pit near Maidenhead. (Mrs. Simmonds).

Melandrium rubrum (Weig) Garcke (Red Campion). Near Wee Waif Cafe, Twyford. (J. Hodgson). This is quite uncommon locally.

Stellaria palustris Retz (Marsh Stitchwort). Marshy ground near Basildon (J. Hodgson). This more uncommon stitchwort still flourishes at Great Lea Pond, near Grazeley.

Minuartia tenuifolia (L) Hiern. (Fine-leaved Sandwort) Medmenham (Mrs. Paul).

Chenopodium murale L (Nettle-leaved Goosefoot) Allotments by Coley Recreation Ground (Mrs. Hodgson).

Linum bienne Mill (Pale Flax) Flackwell Heath. (Mrs. Paul).

Saxifraga granulata L. (Meadow Saxifrage) Top of Streatley Hill, April 27th. (Mrs. Simmonds).

Datura stramonium L (Thorn-apple)

1. 12 plants on a small piece of newly made up ground at Peppard (Mrs. Paul).
2. Among weeds at Wokingham Hospital.
3. On an allotment in Water Road, Reading, from which it could not be eradicated.

Hottonia palustris L (Water Violet). Appears to be increasing at Great Lea Common, Pingewood, near Grazeley, despite the gradual silting up of the pond.

Veronica arvensis L. (Wall Speedwell). Very conspicuous at Donnington Castle (Mrs. Simmonds).

Kickxia spuria (L) Dum. (Male Fluellen). Rather local on arable land, Collin's End. (A. Duncombe).

Polemonium caeruleum L (Jacob's Ladder). A flourishing colony on Snelsmore Common, July 20th. (E.M. Nelmes). This species is indigenous on limestone hills in northern England, but has long been cultivated in cottage gardens and seeds readily. Professor Hawkins has fossil evidence of its former presence in the Newbury district.

Onopordum acanthium L (Scotch or Cotton Thistle). Tilehurst (J. Hodgson).

Centaurea salustialis L (Star Thistle). On lucerne, Westwood Farm, near Nettlebed. It did not appear this year in the field off the Basingstoke Road.

Picris echioides L (Bristly Ox-tongue)

1. A plant on a chalk slope near Brazier's Park, August 10th.
2. A plant on the bank of the "New Cut" near Waltham St, Lawrence. (Mrs. Simmonds).

Butomus umbellatus L. (Flowering Rush) A small patch by a narrow stream near the Thames east of Pangbourne. (Miss J. Watson).

Leucojum aestivum L. (Loddon Lily or Summer Snowflake). When the island downstream from Sindlesham Mill was visited on April 21st, all the flowers had been picked following the construction of a causeway from the river bank. (Mrs. Simmonds).

Fritillaria meleagris L (Snake's Head). Most early species were 3 - 4 weeks earlier than usual, but this species was only in the early stages of flowering on April 21st. Stems were short and flowers damaged by birds and less abundant than usual. (Mrs. Simmonds).

Orchis simia Lam. (Monkey Orchid). One specimen, May 25th.

O. morio L (Green-veined Orchid). Recreation Ground, near Burghfield Common, May 23rd. (The Recorder).

Carex pendula L (Pendulous Sedge) Gravel pit near the Cuning Man, Burghfield. (J. Hodgson).

C. disticha Huds (Brown Sedge) Plentiful on one sandy spot near Silchester Common.

Cyperus longus L (Sweet Galingale) Henley (Mrs. Paul). This handsome sedge with umbels of bright chestnut glumes is very local or rare in wet meadows or marshy places beside ponds and ditches. It was found on a Society's excursion to Harpsden and Henley, probably in the same place, in 1936.

Setaria spp. Rare grasses of cultivated and waste land
S. viridis (L) Beauv (Green Bristle Grass) . Christchurch Road.

S. glauca (L) Beauv. (Yellow Bristle Grass). One plant on waste ground in Theale. (J. Hodgson).

S. italica (L) Beauv. (Fox Tail or Italian Millet). Plentiful on waste ground in Theale. (Mrs. Hodgson).

Introduced Plants

Lobularia maritima (L) Desv. (Sweet Alison). Gravel pit, Theale. (J. Hodgson).

Bupleurum rotundifolium L. (Hare's Ear, Thorow Wax). A specimen brought into the Museum occurred as a garden weed.

Galinsoga parviflora Cav. (Gallant Soldier) . In the garden of Station House, Mortimer.

G. ciliata (Raf) Blake. Closely resembles G. parviflora , but for the hairy stems. Gravel pit at Highland Farm, near Henley-on-Thames.

Impatiens glandulifera Royle (Policeman's Helmet, Himalayan Balsam)

1. An island in the Thames above Tilehurst Station. (Mrs. Simmonds).
2. On the north bank of the Thames not far from Reading. (The Recorder).

This plant was recorded by Mr. Fishlock from Hambleden in 1946 and appears to be spreading.

Geranium endressi J. Gay. Naturalised from gardens at Bradfield. (Mrs. Hodgson)

Carduus marianum (L) Gaertn. (Milk Thistle). One small plant among grass in Christchurch Road.

The Recorder thanks all those who have made this report possible.

Extracts from the Recorder's Report for Entomology

1956-7

by B.R. Baker, B.Sc., A.M.A., F.R.E.S.

These extracts have been prepared from material sent in by the following workers to whom we extend our grateful thanks:- Mrs.A.M. Simmonds, Air Marshal Sir Robert Saundby and Messrs. H.L. Dolton, A. Price, T.J. Homer, R. Taylor and the Director of the Reading Museum & Art Gallery, Mr. W.A. Smallcombe.

Area Covered

In order to include such noted collecting grounds as Pamber Forest in north Hampshire and the chalk downs of the Watlington area in Oxfordshire it has been the custom in the past to include all available insect records within a 20 mile radius of Reading.

Many of the records which follow have been made in the Kennet Valley between Reading and Newbury. A detailed list of lepidoptera is given for a locality near Maidenhead in east Berkshire, whilst we have extended our boundary westwards in order to include Highclere, Hampshire, from whence Mr.R. Taylor has sent further lepidoptera records.

Individual Insect Orders

Order Ephemeroptera (May-flies)

Ephemerella ignita (Poda) (Blue-winged Olive), Woolhampton, July 28th.

Order Odonata (Dragon-flies)

Cordulia aenea (L) (The Downy Emerald), numerous at Oval Pond, Padworth on June 1st and 2nd.

Libellula quadrimaculata.L. (4-spot Libellula) and Pyrrosoma nymphula.(Sulz) were also noted on the same dates at Oval Pond.

Agrion virgo (L) (Demoiselle Agrion) abundant in the stream at Pamber Forest near the White Bridge on the Bramley Road, June 16th. The two species of Agrion, splendens and virgo seldom occur in company, and among the many virgo noted at Pamber only one splendens was seen.

Anax imperator,Leach. (Emperor dragon-fly) was to be seen in numbers over the fishpond on Wokefield Common on June 30th.

Order Plecoptera (Stone-flies)

Two new records were made during the year:-

Leuctra fusca L. Pamber Forest, October 1st.

Nemurella inconspicua (Pict) Woolhampton, September 21st.

Order Hemiptera (Water Bugs, Plant Bugs, Aphids etc)

Ranatra linearis (L) Collier's Claypit, Tilehurst, March 17th.
Aphelecheirus aestivalis Westw. 4 taken at Burghfield Bridge on May 25th.

Order Neuroptera

The snake-fly Raphidia notata Fabr. was again observed at Padworth on April 27th. A larva of this species was found in Pamber Forest among lichens on an oak trunk on October 1st.

Osmylus fulvicephalus (Scop). (Giant Lace-wing) was numerous at Pamber on May 28th and again on June 16th.

Sisyra fuscata (Fabr). This interesting little Neuropteran, whose larva is parasitic on freshwater sponges, was observed in the adult stage on the Kennet near Burghfield Bridge (June 11th) and in greater numbers on the Kennet at Theale (July 28th).

Order Trichoptera (Caddis-flies)

Work has steadily gone ahead during the year and the Berkshire list of species is increasing. Of the known British caddis (191) 106 have so far been recorded from Berkshire.

Additions to the local list during the year were:-

Lype reducta (Hagen) Padworth Mill, on the occasion of the Society's visit there on May 4th.

Ironoquia dubia Steph, recorded by Dr. Crichton from Oakfield Pond early in October.

Hydroptila occulta (Eaton) and H. femoralis (Eaton), river Pang near Tidmarsh, July 28th.

Oxyethira falcata Mort. from the Pang at Bradfield on July 6th.

Order Lepidoptera (Butterflies and Moths)

Migrant Species

Acherontia atropos (L) Death's Head Hawkmoth. A larva was brought to the Museum by Mr. M.O. Weeks of Nettlebed on August 12th. This produced an adult on October 4th. Two Death's Heads, two Herse convolvuli (L) Convolvulus Hawkmoth and a single Heliothis armigera (Hubn) Scarce Bordered Straw were recorded from Highclere in September, 1956, but the records were received too late for inclusion in that year's report.

Heliothis peltigera (Schiff) Bordered Straw. 1 on March 28th, 1957, at Highclere.

Margarona unionalis (Hubn). This rare migrant micro. was taken at Burghclere on October 3rd.

Lepidoptera Resident Species

An interesting list of macro-lepidoptera was sent in by Mr. T. J. Homer and as these were trap records from the Maidenhead area (Pinkney's Green), which is not well known to local lepidopterists, we print the list as received :-

<u>Mimas tiliae</u> (L).	Lime Hawkmoth.	May 28th, 30th, June 26th.
<u>Laothoe populi</u> (L).	Poplar Hawkmoth.	May 30th, June 17th, 19th, 21st, 23rd.
<u>Smerinthus ocellatus</u> (L)		May 30th, June 26th, 29th.
<u>Sphinx ligustri</u> (L)	Privet Hawkmoth.	June 17th.
<u>Hyloicus pinastri</u> (L)	Pine Hawkmoth.	June 27th.
<u>Deilephila porcellus</u> (L)	Small Elephant Hawkmoth.	June 18th, 19th (3), June 21st, 28th, 29th.
<u>Cerura hermelinea</u> (Goeze)	Poplar Kitten.	May 28th.
<u>Stauropus fagi</u> (L)	Lobster Moth.	June 18th, 27th, 28th (2), 29th.
<u>Drymonia trimacula</u> (Esper)	Marbled Brown.	May 27th.
<u>Pheosia tremula</u> (Cle)	Swallow Prominent.	June 28th.
<u>Pheosia gnoma</u> (F)	Lesser Swallow Prominent.	June 19th.
<u>Notodonta anceps</u> (Goeze)	Great Prominent.	May 27th, 28th.
<u>Lophopteryx capucina</u> (L)	Coxcomb Prominent.	June 20th.
<u>Pterostoma palpina</u> (L)	Pale Prominent.	May 28th.
<u>Phalera bucephala</u> (L)	Buff Tip.	June 27th.
<u>Thyatira batis</u> (L)	Peach Blossom.	June 18th.
<u>Tethea ocularis</u> Guenee.	Figure of 80.	June 23rd, 27th.
<u>Dasychira pudibunda</u> (L)	Pale Tussock.	May 27th.
<u>Malacosoma neustria</u> (L)	Lackey Moth.	June 25th, 27th, 28th, 29th.
<u>Hadena lepida</u> (Esper)	Tawny Shears.	June 27th.
<u>Philudoria potatoria</u> (L)	Drinker.	June 29th.
<u>Gastropacha quercifolia</u> (L)	Lappet.	June 18th, 19th.
<u>Bena prasinana</u> (L)	Green Silver Lines.	June 19th.
<u>Spilosoma lubricipeda</u> (L)	White Ermine.	May 28th.
<u>Spilosoma lutea</u> (Hufn)	Buff Ermine.	May 27th.
<u>Arctia caja</u> (L)	Garden Tiger.	June 23rd, 28th, 29th (2)
<u>Agrotis puta</u> Hubn.	Shuttle-shaped Dart.	May 30th (4)
<u>Agrotis exclamatoris</u> (L)	Heart & Dart.	Abundant whole period.
<u>Amathes c-nigrum</u> (L)	Setaceous Hebrew Character.	May 29th (2), 30th (2).
<u>Ochropterura plecta</u> (L)	Flame Shoulder.	May 27th (6), 28th (4), 29th (5), 30th (2).
<u>Lampra fimbria</u> (L)	Broad-bordered Yellow Underwing.	June 28th.
<u>Polia advena</u> (Schiff)	Pale Shining Brown.	June 28th.
<u>Hadena conspersa</u> (Schiff)	Marbled Coronet.	June 23rd, 27th, 29th.
<u>Heliophobus reticulatus</u> (de Vill)	Bordered Gothic.	June 29th.
<u>Apamea hepatica</u> (Hubn)	Clouded Brindle.	June 28th.
<u>Euplexia lucipara</u> (L)	Small Angle Shades.	May 30th.
<u>Phlogophora meticulosa</u> (L)	Angle Shades.	May 27th (3), 28th (3), 29th (2), 30th (2).
<u>Meristis trigammica</u> (Hufn).	Treble Lines.	May 28th (4), 29th (3), 30th (3).
<u>Rusina umbratica</u> (L)	Brown Rustic.	June 27th (3).
<u>Cucullia lychnitis</u> Ramb.	Striped Lychnis.	June 28th.
<u>Cucullia umbratica</u> (L)	Shark.	June 19th, 25th.

<u>Abrostola tripartita</u> (Hufn)	Light Spectacle .	June 23rd (2).
<u>Plusia iota</u> (L)	Plain Golden Y.	June 20th, 26th.
<u>Gonodontis bidentata</u> (Cle)	Scalloped Hazel.	May 27th,
<u>Biston betularia</u> (L)	Peppered Moth.	May 29th.
<u>Zeuzera pyrina</u> (L)	Leopard Moth.	June 28th (3).

(47 different species are recorded by the above list)

An equally interesting list was received from Highclere (R. Taylor) and as this is again a relatively unknown area to local workers the list is given in entirety:-

<u>Clostera curtula</u> (L)	Chocolate Tip.	May 3rd.
<u>Tethea or</u> (Schiff)	Poplar lutestring .	July 5th.
<u>Leucoma salicis</u> (L)	White Satin.	July 5th.
<u>Nola strigula</u> (Schiff)	Small Black Arches.	July 2nd.
<u>Apatele alni</u> (L)	The Alder.	June 1st.
<u>Hadena conspersa</u> (Schiff)	Marbled Coronet.	June 18th.
<u>Eumichtis adusta</u> (Esp)	Dark Brocade.	May 29th.
<u>Miana literosa</u> (Haw).	Rosy Minor.	July 28th.
<u>Apamea scolopacina</u> (Esp).	Slender Brindle.	August 6th.
<u>Oria musculosa</u> (Hubn)	Brighton Wainscot.	August 7th.
<u>Lygephila pastinum</u> (Treits)	Blackneck.	July 7th.
<u>Pyrrhia umbra</u> (Hufn)	Bordered Sallow.	July 5th.
<u>Eremobia ochroleuca</u> (Schiff)	Dusky Sallow.	August 2nd.
<u>Xanthorhoe quadrifasciata</u> (Cl)	Large Twin-spot carpet.	August 6th.
<u>Euphyia picata</u> (Hubn)	Cloaked Carpet.	July 5th.

During the year 17 visits were made to Woolhampton Marshes and the recorder noted the following lepidoptera at light:-

<u>Leucoma salicis</u> (L)	White Satin.	July 5th
<u>Dasychira fascelina</u> (L)	Dark Tussock.	August 3rd.
<u>Apatele tridens</u> (Schiff)	Dark Dagger.	July 29th.
<u>Amathes glareosa</u> (Esp)	Autumnal Rustic.	September 21st.
<u>Amathes ditrapezium</u> (Borkh)	Triple-spotted Clay.	July 5th.
<u>Amathes stigmatica</u> (Hubn)	Square-spotted Clay.	August 2nd.
<u>Oria musculosa</u> (Hubn)	Brighton Wainscot.	July 3rd.
(this was a very early date and an unexpected locality for this moth)		
<u>Leucania obsoleta</u> (Hubn)	Obscure Wainscot.	June 15th, July 5th.
<u>Hydraecia petasites</u> (Doubl)	Butterbur.	August 3rd, 6th.
<u>Phalaena typica</u> L	Gothic	August 3rd.
<u>Xanthorhoe quadrifasciata</u> (Cl)	Large Twin-spot Carpet.	July 5th.

Micro-lepidoptera

The following species of Lithocolletis were bred by Mr. Dolton from leaf mines:-

<u>Lithocolletis concomitella</u> Banks	(apple)
<u>L. tristrigella</u> (Haw)	(elm)
<u>L. schreberella</u> (Fabr)	(elm)
<u>L. corylifoliella</u> (Haw)	(apple)
<u>L. coryli</u> von Nic	(hazel)
<u>L. spinicolella</u> Zell	(sloe)
<u>L. blancardella</u> (Fabr)	(apple)

Order Coleoptera (Beetles)

<u>Dytiscus marginalis</u> L) all from the same ditch near Caversham Bridge, May 10th.
<u>D. circumflexus</u> Fabr	
<u>D. circumcinctus</u> Ahr	
<u>D. semiculcatus</u> Muel	
<u>Rantus exsoletus</u> (Forst)	Burghfield Bridge, May 25th.
<u>Agabus paludosus</u> (Fabr)	Sulham Stream, July 11th, (4).
<u>Agabus didymus</u> (Oliv)	Nunhide Farm Lane, June 13th, (1).
<u>Rantus exsoletus</u> (Forst)	(4)
<u>Agabus nebulosus</u> (Forst)	Wokefield Common, June 16th. (4)
<u>Ilybius fenestratus</u> (Fabr)	(5)
<u>Rantus notatus</u> (Fabr)	Tilehurst Potteries July 23rd. (4) (1)
<u>Agabus nebulosus</u> (Forst)	
<u>Hydaticus seminiger</u> (Deg)	Burghfield Bridge, September 22nd. (2♂♂, 5♀♀)

The Recorder's Report for Ornithology

(November 1956-November 1957)

by E.V. Watson, B.Sc., Ph.D.

Heavy pressure of other commitments coupled with a remarkable scarcity of records submitted by members of this society prevent me from making more than a brief statement of ornithological events in the past year. Since these remarks are to be brief I will treat such events as have come to my notice in a broadly chronological sequence.

The early winter period opened with the numbers of the usual species of duck on local waters mounting to substantial figures. Thus, over 300 Mallard were recorded at Sonning Eye gravel pit on December 2nd, some 60 Teal at Englefield on December 6th, whilst by December 27th the numbers of Tufted Duck and Pochard at Burghfield gravel pit were both around the 60 mark. Small to medium sized flocks of both these species are of course a regular feature of the winter bird life at this large pit, which now amounts to a considerable stretch of water. No less than 15 Shoveler were noted at Englefield on December 15th, where the ample cover no doubt suits them. The most unusual species of duck met with during this early winter period was a single Goosander, seen at Burghfield gravel pit on November 24th.

The month of November saw several records of visiting Lesser Black-backed Gulls in the Reading area, a species likely to turn up at almost any time of the year but never in big numbers. By contrast, the Black-headed Gull is with us in immense numbers at "peak periods" during the winter. In the season under review numbers amounting to many hundreds of birds were observed making their way in to settle on Sonning Eye gravel pit for roosting purposes during late December. This incoming horde of Black-headed Gulls was estimated at about 1,400 on the afternoon of December 27th.

For the opening months of 1957 extremely few records are available. Unlike several recent winters, January and February were not marked by any exceptionally cold spells. Indeed, February 3rd was a quite remarkably warm day and the birds met by our party at Streatley on this occasion marked the mild weather, as one might have expected, by a good burst of early song. Bird song at all times tends to fluctuate much with the weather, and Mrs. Simmonds' record of Chaffinch in full song on March 1st no doubt coincided with another day of relatively warm weather; although it is true to say that by March almost the full chorus of resident songsters may generally be heard and mornings without much song from Chaffinch, Blackbird, Song Thrush, Greenfinch, Wren and all the rest would be exceptional.

The Lesser Spotted Woodpecker is not really rare, rather it is

elusive, especially if its characteristic call is not known. I came across one in Caversham Warren on January 13th. Sometimes it appears in the precincts of Reading University. I have seen it both on mature timber fringing the Athletics Ground in Elmhurst Road and on the main site. A few seasons ago I knew of a nest in Eastern Avenue, but no record has come to my notice of it in this part of Reading during the year under review. Of species that are uncommon in this district a record of Stonechat on December 3rd and 5th at Burghfield is worth mention; also observations of White-fronted Geese at Sonning Eye in February. Three were there when I visited this water on February 28th, a date also marked by the presence on the lake of about 12 Shoveler, 20 Widgeon and 7 Canada Geese. At least 50 Coot were all feeding in the water meadow adjoining the lake when I arrived.

The month of March would seem to have been rather devoid of incident, but doubtless many records have yet to come to light. Mr. K.E.L. Simmons informs me of a Water Rail on March 23rd at Burghfield gravel pit. This is a bird we are seldom privileged to see, and Mr. W.A. Smallcombe reports a Great Grey Shrike which was unfortunately shot in mistake for a Jay when seen at Wasing. It was submitted to the Reading Museum by Sir William Mount. Spring came early in 1957 and by mid-March the first Chiffchaffs were with us. My own record of one on March 14th was the earliest I have ever had, but Dr. C.C. Balch had already recorded it, some days before this, in the Shinfield area. Woodlarks were in beautiful song at Eversley Common on March 3rd. This was a superb Spring day, with afternoon temperatures climbing well into the lower sixties. By the 31st March the first Blackcap had arrived in Caversham Warren.

April was notable for a long spell of anticyclonic weather, but such records as are available do not suggest that the later migrants arrived in any way in advance of their usual times. Night temperatures tended to be low, with wind largely in the east, so that this is not surprising. When, after an absence of three weeks from the Reading area, I visited Sonning Eye on April 19th I saw no Sedge Warbler, no Whitethroat and no Swallows. Of Summer visitors, only the recently arrived Cuckoo and the more fully established Willow Warbler were in evidence. A similar scarcity of incoming species prevailed 2 days later. I did not see my first local Swallows and Sedge Warblers until April 27th.

Mr. Simmons has given me a note of two unusual species seen in the Reading area in April. They are: Dunlin, at Manor Farm, and a drake Garganey, at Theale "new" pit, both on April 19th. Observers at Burghfield gravel pit were intrigued to see 2 Cape Teal (of course escaped from a private collection) on that water during April. On 27th April I was keeping a look-out for passage migrant birds, such as Redstart, Whinchat and Wheatear, that one is sometimes fortunate enough to see in places where they plainly do not nest. I was rewarded by a view, on arable land along the Henley Road, of 2 fine male Wheatears. Mr. Nigel Charles, who was photographing during late April at Aldermaston, heard the elusive Grasshopper Warbler there.

May is in most years the month that brings our first Swifts. I came upon one at Sonning Eye on May 2nd., whilst Mrs. Hasker reports arrivals of 2 separate flights of these birds on the morning of May 8th. Early May is often, too, a time for unusual bird visitors. May 1957 gave us at least 2 of these, an Osprey which I was fortunate enough to see very clearly, although only for a few minutes, at Sonning on May 2nd, and a Turnstone which Mr. Simmons observed at Theale "new" gravel pit on May 22nd; both decidedly must be classed as rarities. So, too, must the Hoopoe of which Mr. W.A. Smallcombe kindly gave me a report later in the Summer. The bird concerned was one watched by Mrs. P.S. Simpson Nisieux of Copse Mead, Woodley, for half an hour in her garden on August 7th. She was able to describe it in minute detail.

So far as breeding birds on local gravel pits are concerned, it is interesting to see how the emphasis and the interest shift from one to another. True, Burghfield is less good than it used to be a few years ago. Theale "new" pit is becoming increasingly favoured each year. In 1957 Shoveler and several pairs of Tufted Duck nested there, Mr. Simmons tells me. At the old Theale pit 3 pairs of Canada Geese bred for the first time. The Little Ringed Plover can again be claimed as a local breeding species, even if the site selected changes from one pit to another in different years according to the availability of suitable stretches of gravelly terrain.

The Nightingale is a bird more often heard than seen by most of us and its nest is elusive. Mrs. Hasker reports having been shown a nest of this species at Theale on June 13th. It contained 4 young. My own observation of a fine male Red-backed Shrike on May 31st on the rough ground at the end of Kidmore Road, was unfortunately not followed up, so that one does not know whether it bred there or not. The area is very suitable in character for this species which seems to be growing increasingly scarce. Probably only 2 or 3 pairs nest nowadays in the Reading area. Unhappily, the Wryneck has become scarcer still and it is doubtful if any pairs nested at all in our district in 1957.

The late Summer period witnessed several interesting records. Mr. Simmons has kindly told me of a juvenile Redstart seen by the Bath Road near Theale on August 4th and a juvenile Black Tern at Theale "old" pit on August 23rd. Nearly a month later, on September 21st some 15 - 20 Black Terns were seen at Burghfield gravel pit, an observation which links up rather suggestively with a note that has come in of a similar sized flock on the gravel pit near Dorchester, Oxon. on the previous day.

In late September some very disturbed weather occurred. It appears that this resulted in a Hoopoe turning up at Theale "new" pit and remaining there from September 23rd - 26th, where it was minutely observed by several of the workers but regrettably never came to the notice of any ornithologist. At this same pit a Sheld-duck was seen on October 5th, whilst on October 13th I came upon an exceptionally late Common Sandpiper there. The Green

Sandpiper commonly stays on in the Reading area, almost until the end of the year, although only in very small numbers. It was seen at Englefield on December 16th, 1956. I flushed one from Aldermaston "north wharf" pit on September 27th, 1957. No doubt one or two are still about and will remain with us to celebrate Christmas !

So the ornithological year runs full cycle. The Fieldfare and the Redwing are back with us again and the numbers of Black-headed Gulls are beginning to build up on the Thames. Perhaps the numbers of observers will build up also, so that a year hence we may offer a report less fragmentary than this one had to be. It is a pleasure to thank those members who have sent in records, also to acknowledge the debt that one owes to the Reading Ornithological Club Report for 1956 and to Mr. K.E.L. Simmons, one of its Editors, in particular.

An Interim Report on THE WATER BEETLES of READING

BY A. Price

I offer this contribution with due humility because this is only the second year during which my attention has been directed towards the Hydradephaga.

The best time of the year for catching water beetles is during May/June or August/September, but I have taken active beetles all the year round, even under ice.

Beetles can be divided into three sub-orders:

ADEPHAGA, POLYPHAGA and ARCHOSTEMATA

This report is concerned with the Hydradephaga section of the ADEPHAGA. No mention is made of Hydrophilidae, many of which live in water.

Hydradephaga are divided into four families:-

HALIPLIDAE, HYGROBIIDAE, DYTISCIDAE, GYRINIDAE

The detailed classification of Hydradephaga is given by the chart at the end of this paper.

Little work has been done on some of the smaller beetles, studies having been mainly concentrated on the Dytiscidae.

HALIPLIDAE

All the beetles in this family are less than 1/6" in length. They are common and abundant locally but I have done little detailed work on them. They may be readily placed in the correct family by noting the presence of large post coxal plates, which conceal the bases of the rear legs. One easily recognised species is Brychius elevatus (Panzer) which has been caught in the swiftly flowing tail race of Tidmarsh Mill.

HYGROBIIDAE

In this family we have only one species, Hygrobia hermanni (F). This is fairly common in silt ponds around Reading. It is a globular beetle whose presence can be detected in the net, before it is seen. Its common name is the Screech Beetle and it is so called because it is capable of emitting a squeaking noise when excited. It stridulates by rubbing the apex of its abdomen against a file on the inner aspect of its elytra.

GYRINIDAE

This family consists of three genera:-

Aulonogyrus - one species - found only on islands off the coast of Scotland.

Orectochilus - one species - fairly wide-spread, and

Gyrinus - ten species. I have only taken two species locally, which I can readily recognise. They are G. urinator Illiger., and G. natator (L).

These beetles are popularly called Whirligig Beetles owing to their habit of constantly darting in graceful curves around one another. They are mainly gregarious and I have seen upwards of forty beetles on the surface of the water on a sunny day in winter.

They are well adapted to their life on the water, the mid and hind legs forming very efficient paddles. Their form is elliptical, whilst each compound eye is divided into two separate eyes.

I have not yet done much detailed work on this family.

DYTISCIDAE

My main body of work over the last two years has been on this family.

Dytiscidae are sub-divided into two sub-families:-

Dytiscinae and Noterinae

Noterinae - This family consists of one genus containing two species:-
Noterus clavicornis (Degeer) which I have not yet taken locally,
and N. capricornis (Herbst) which is quite common and abundant in the ponds and gravel pits around Reading.

Dytiscinae - This sub-family is divided into four tribes:-

Laccophilini, Hydroporini, Colymbetini, Dytiscini

1. Laccophilini This tribe consists of one genus, Laccophilus, represented by three species, two of which I have taken around Reading. L. minutus (L) is a small greenish beetle which is very active in a net. It is common and abundant around Reading, particularly in Sulham ponds. L. hyalinus (Degeer), which can be recognised by the presence of a file on the post coxa (male only), has been taken in the oxbow lake on the Kennet, near the gravel pits.

Laccophilus and Noterus are similar in size but can be identified in the net by noting how active Laccophilus specimens are when caught.

The remaining species, L. variegatus (Germar) I have not yet taken in Reading.

2. Hydroporini. This tribe includes eight genera (see chart). Of these I have taken species of the following genera:-
 1. Hyphydrus. The only representative of this genus is H. ovatus (L), a very common insect and easily identified by its red colour and globular shape. It may be taken in ponds and ditches all around Reading.
 2. Hygrotus. This genus is divided into two sub-genera, Hygrotus and Coelambus, with four species in each. Only two species have so far been taken:- H. inaequalis (F), an extremely small globular beetle, has been found at Tilehurst Potteries; C. impresso punctatus (Schaller) has been found at Tilehurst Potteries, Coleman's Moor and a drainage ditch near Burghfield.

3. Deronectes. Of the six species, only two have been found locally:-
D. elegans (Panzer) has been taken at Tidmarsh Mill in fast flowing water,
D. 12-pustulatus (F) has been caught in the Kennet at Burghfield.
4. Hydroporus. I have not done a lot of detailed work on this genus. There are 33 species, all small beetles. Two very common and abundant species which may be seen in almost any piece of water are:- H. planus (F) and H. palustris (L).
H. dorsalis (F). 5 specimens of this uncommon beetle were taken in some pools at Silchester Common. This is a very distinctive species of Hydroporus which can be identified by its pseudotetramerous anterior tarsi.
No representative of that extremely minute beetle, Bidessus, has been identified as yet by me.
3. Colymbetini. This tribe consists of six genera, all of a size permitting a would-be coleopterist to use his key in reasonable comfort. It is a much better starting point than some of the smaller beetles, e.g., Halipidae, which require high magnification for accurate determination of species. Representatives of all six genera have been taken around Reading.
1. Copelatus. C. agilis (F), the only species in this genus, has been taken in a drainage ditch at Burghfield Bridge and at Coleman's Moor in rain-filled pits and ditches. It has also been caught in the ponds at Silchester Common. This beetle deserves its trivial name, agilis, for it is very hard to catch when inside the net.
This year in Carmarthenshire I took C. agilis in a disused canal very much overgrown with grass and Juncus. It was so abundant there that upwards of 24 were taken at each sweep of the net.
2. Agabus. Of the 19 species in this tribe, I have taken eight locally:-
A. bipustulatus (L) is by far the commonest. This black beetle may be taken in almost any stretch of water. It is about 11 mm. in length.
A. sturmii (Gyllenhal) is also quite common. It prefers slowly running or stagnant water.
A. paludosus (F) is a running water species, preferring smaller streams. It has been caught locally in many streams, e.g., near Coley heronry. I have taken it in one small stream off the Bath Road near Theale, in company with -
A. didymus (Olivier), which is a small bronzed beetle with four irregular white marks on the elytra; didymus is a running water species. I have also taken it at Kidwelly in a slow flowing drainage ditch containing iron bacteria.
A. nebulosus (Forster). This yellowish beetle with black spots is found in quite a few ponds near Reading, e.g., Sulham and Tilehurst Potteries.

A. chalconatus (Panzer) has been found in two places near Reading. At Wokefield Common pond it was found in small numbers in company with Ilybius fenestratus (F). However, at Silchester Common, chalconatus was found to be very abundant in a peaty pool containing Juncus and Sphagnum.

A. labiatus (Brahm). Balfour-Browne labels this beetle as extremely local and it has been found to be quite abundant in a peaty pond on Silchester Common. It may be recognised by its small size, 6 mm., narrow metasternal wings, and the long fringe of hairs on the anterior femora (male only)

A. affinis (Paykull). One beetle, a male, was taken in a very grassy pool with Juncus and a little Sphagnum at Silchester Common on June 8th, 1958. It is a parallel-sided beetle, black in colour, about 6 - 7mm. in length. The toothed anterior claw in the male is quite clearly seen.

3. Platambus. Only one species, P. maculatus (L). This is a very attractively marked insect which is taken in running water. It is abundant in the tail race at Tidmarsh Mill and has been taken in many other streams as widespread as the stream in Pamber Forest, and the Kennet at Burghfield. The markings vary a lot, some beetles being almost devoid of white marks.
4. Ilybius. Of the seven species of Ilybius found in this country, I have found four locally:-

I. ater (Degeer) lives in stagnant water and is the largest species of the genus. It is found locally, at Tilehurst Potteries, Caversham Bridge, in a drainage ditch, Sulham and in many other localities.

I. obscurus (Marshall) is another stagnant-water species which resembles ater but is quite a bit smaller. It can also be distinguished by the shorter keel on the seventh abdominal sternum. It has been taken in all the localities mentioned under ater.

I. fuliginosus (F) may be taken in all types of habitat - stagnant water, streams and even brackish water. Locally I have observed this beetle; in the pond at Wokefield Common, in a drainage ditch near Scour's Lane, and on 11th June, 1957 I found it in very great numbers in the grassy verges of the Sul stream at Sulham. It is very widespread around Reading. It can easily be identified by the yellow margins of the elytra and elongate shape. On June 9th, 1958, I took 3 specimens which were attracted to mercury vapour light whilst we were looking for Leucania obsoleta the Obscure Wainscot moth.

I. fenestratus (F) is a rather uncommon species found mainly in ponds. It can be identified by its bronzed upper surface, red underparts and very narrow metasternal wings.

I have found it locally only in one pond, that at Wokefield Common. On 25th May, 1958 it was abundant in mixed vegetation, at the pond's edge, of moss and Bog St. John's Wort (Hypericum elodes)

No trace has been found locally of; subaeneus, guttiger, or aenescens.

5. Colymbetes. There is only one species in this genus in our country, C. fuscus (L), which lives in stagnant water. It is common all round Reading. A typical habitat is the pond near Sulham Woods. It may be identified by the transverse sculpturing on its elytra.

6. Rantus. This genus is represented in the British Isles by six species, two of which I have found near Reading:-

R. pulverosus (Stephens). This is a pond and marsh drain species found in many localities around Reading, e.g., Loddon Bridge, Burghfield Bridge and Tilehurst Potteries.

R. exsoletus (Forster) I have only taken in the small clay-pit pond at Tilehurst Potteries.

R. grapii (Gyllenhal). This uncommon species of Rantus has not been found locally but on 12th April, 1958 I took five specimens in an overgrown disused canal where it was mixed with a very thriving colony of Copelatus agilis.

4. Dytiscini. This tribe consists of five genera, representatives of three of which I have caught locally:-

1. Dytiscus. This genus embraces six species, one of which,

D. lapponicus Gyllenhal is confined to islands off the coast of Scotland. Another, D. dimidiatus Bergstrasser, has not been found locally.

The remaining four species have all been taken near Reading. Indeed, on one occasion, I found all four species in the one drainage ditch near Caversham Bridge within a distance of one hundred yards of each other.

D. semisulcatus Mueller. This species is easily recognised by its black belly and the rounded post-coxal process: I have caught this beetle in many ponds. Some localities - Caversham Bridge, Sulham Ponds, Scour's Lane.

D. marginalis L. This is the commonest species of the genus. It is a stagnant water beetle although I have also taken it in quite swiftly flowing streams. This beetle can be found in most ponds and ditches around Reading. I have kept the species in an aquarium for up to 12 months where they feed by "winkling" out pond snails (Limnaea).

D. circumcinctus Ahrens. I have taken this uncommon species in some numbers in a drainage ditch which runs parallel with the Thames. I have also caught it in three ponds, one beetle at a time, in a quite widespread area round Reading. The beetle may be recognised by the black markings on its yellow underparts and by the very narrow yellow band on the posterior margin of the pronotum. On 3rd June, 1958 one of my boys at school brought me a very good specimen found in a fourth pond, which I shall visit as soon as possible.

The sex of water beetles can be determined in one of two ways:-

Anterior tarsi. The anterior tarsi of the males are enlarged and bear sucker hairs to help in grasping the female;

Fluted elytra. Some females have fluted elytra whilst the elytra of the males are plain.

Females of circumcinctus are dimorphic, i.e., both fluted and plain females can be taken. In circumcinctus, the female having plain elytra is the type form, whilst the female with fluted elytra is the variety dubius. I have taken both forms locally.

D. circumflexus Fabricius. This uncommon species lives mainly in brackish water but I have found it in several places around Reading, e.g., Caversham Bridge, Tilehurst Potteries, Scour's Lane and Sulham Ponds. I have only taken single beetles except in one of the above localities, where I have taken it in small numbers.

2. Hydaticus. This genus contains two species, H. seminiger (Degeer) and H. transversalis (Pontoppidan). They are fen dwellers. For transversalis I have no records.

H. seminiger. The last record for seminiger in Berkshire was one from the Kennet and Avon Canal near Newbury in 1910 (three specimens). In September 1957 I took it in some numbers in a drainage ditch near Burghfield. This spring I checked upon the ditch and found, to my dismay, a dry ditch, due to alteration to the drainage plan of the meadow.

I have, however, since that, seen a seminiger female in another locality some miles away, so they seem to have found a new locality.

3. Acilius. Of the two species, sulcatus and caniculatus, I have only records for sulcatus.

A. sulcatus Linnaeus. This beetle is not common and is not found in any great numbers. I have found it regularly at Sulham Ponds and also at Wokefield Common.

Beetles and Bladderwort

In two places near Reading, an artificial oxbow lake near Burghfield, and a drainage ditch near the Thames, I have found bladderwort - Utricularia vulgaris, I think. In both localities water beetles are extremely scarce.

In the case of the oxbow lake, the river cuts between the two parts of the meander. In the northern section there is a fairly wide selection of beetles including Dytiscus marginalis L, whilst in the southern section, only 30 - 40 yards away, there are practically no beetles and some bladderwort. In the drainage ditch which contains Frogbit, Hydrocharis morsus-ranae, in addition to Bladderwort, only a few Haliplidae have been found.

Is there a connection between the presence of Bladderwort and the absence of beetles ?.

Notes on other orders of Water Insects

Order Hemiptera. Sub-Order Heteroptera (Water Bugs)

Notonecta . In the Tilehurst Potteries pond, four species of Notonecta; glaucia Linnaeus, viridis Delcourt, obliqua Gallen and maculata Fabricius have all been found in the one small pond.

Ranatra linearis (Linnaeus). Three localities have been found for this insect, Tilehurst Potteries, Coleman's Moor, Woodley and the Oxbow Lake at Burghfield.

Aphelocheirus montandoni Horvath. This quite uncommon bug has been found in the Holy Brook at Southcote and in a little stream near Burghfield in small numbers. It is found in the gravel underneath "Water Crowfoot" Ranunculus aquatilis L. I have also taken it on the Kennet at Woolhampton - 9th June, 1958

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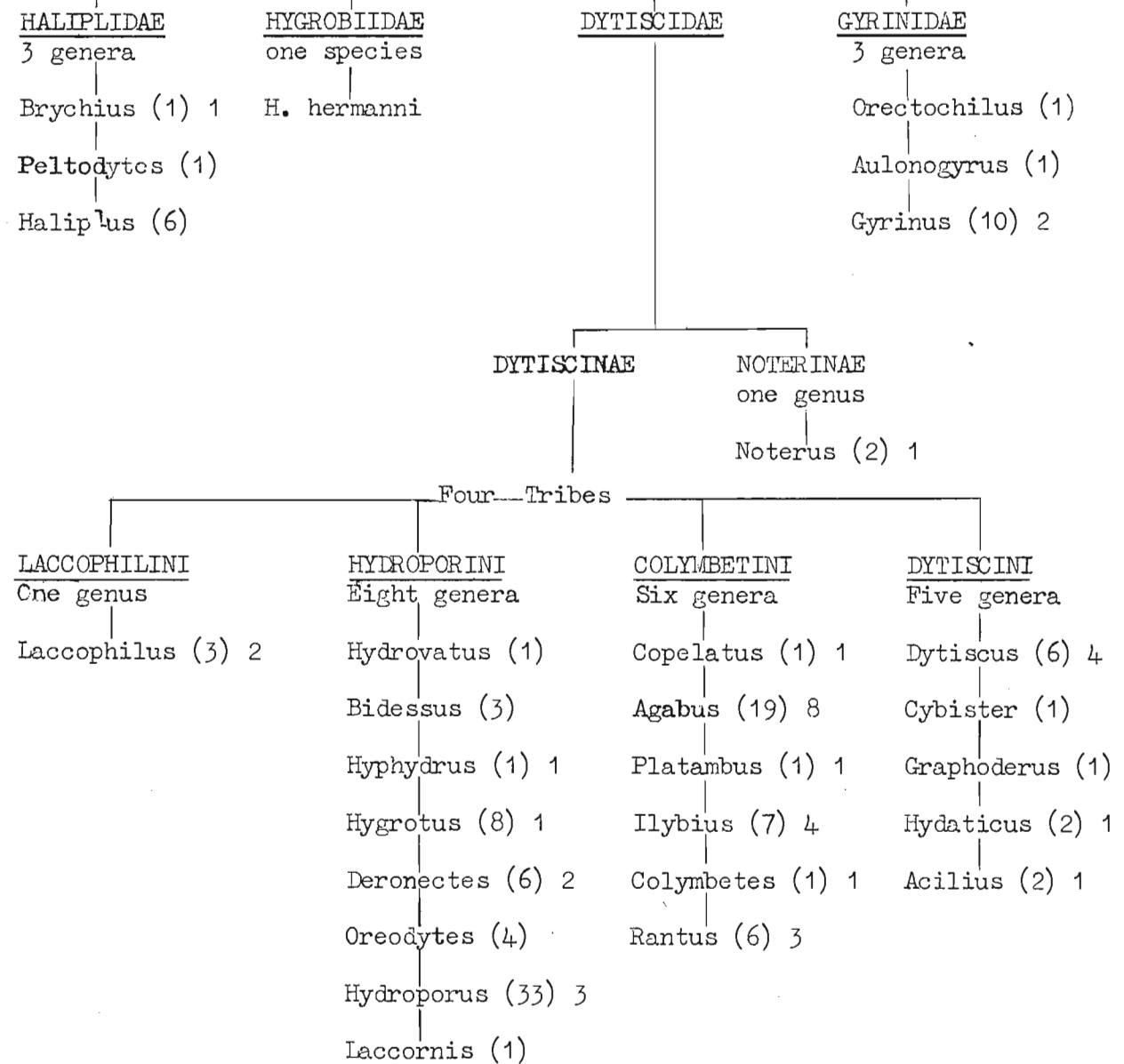
N.B.

The following beetles have also been recorded locally,
Peltodytes caesus Duftschmid.

Bidessus geminus F.

Deronectes latus Stephens ., notice of these three very good captures was received too late for insertion in sequence in the above paper.

HYDRADEPHAGA



Number of Genera - 28

Number of Species per genus - indicated in parentheses

Total species for all genera - 130

Number of Species taken to date indicated after parentheses.

Plant Communities of a Heathland Pond

By A.M. Simmonds

Some six miles south-west of Reading is situated an area of wooded common-land which has long been a favourite hunting-ground of botanists as well as zoologists.

A glance at the geological map of this district shows that Wokefield Common, as it is officially known, (although "Three Firs" and Burghfield Common are more familiar names) lies mainly on plateau gravel. This fact explains the characteristic flora of the locality under consideration, a pine, birch, and heath community, with associated acid-loving plants. Many years ago this piece of country was natural pine woodland, but during the 1914 - 18 period it was clear-felled. Since then it has been colonized by a secondary growth of Betula verrucosa Ehrh (Silver Birch) and Pinus sylvestris L (Scotch Fir).

The centre of interest in this area is undoubtedly the Fish Pond, which in its waters and on its margins supports a rather unique flora, many of the plants being of rare occurrence in the Reading radius (approximately 10 miles). This pond is of no great size, about 30 yards across, and about three times as long. It is of artificial construction, and was made 150 years ago by damming a small drainage stream, and was originally a sheep-dip. The southern end is the deeper and rests on clay and here are growing two large oaks on the dam. The northern end rests on gravel and is very shallow. The depth of water varies according to the season, and in an exceptionally dry summer the actual area covered by water may be halved. As far as is known the pond was last drained and cleaned just over fifty years ago, and except for reinforcement of the dam in 1930 has since remained undisturbed. Unfortunately, there seems a tendency recently for branches of trees and other miscellany, (e.g. motor-tyres) to be thrown into the pond.

The first thing one notices when botanising at this spot, is that the various species grow in definite zones, using the word as denoting colonies rather than belts, and this is true of the marginal flora as well as that of the pond itself. Dr.P.S. Corbet in the "Life History of Anax imperator" (Journal of Animal Ecology, May 1957) makes the observation that the aquatic plant-zones bear a relationship to the segregation of larvae of different ages, and that the marginal plants also influence the distribution of emergence sites.

By far the largest area of water (roughly about one-third) is occupied by Potamogeton natans L (Broad-leaved Pondweed) and the surface of the deep water is well covered with the oval brownish-green leaves, with here and there a similarly hued flower-spike rising above them, - rather a dull and uninteresting plant it may be thought, but at least easily identified. Far more attractive is Hypericum elodes L (Marsh St. John's Wort), which occurs in two great mats towards the eastern and western shores. The stretch of water

between them is occupied mainly by Eleogiton (= Scirpus) fluitans (L) (Floating Club-rush) and Juncus bulbosus L. H. elodes at first sight is very unlike the other species of Hypericum. The leaves are almost round and of a soft greyish-green, and both leaves and stems are clothed in soft, woolly white hairs. The pale yellow flowers, few in number at the top of the stalk, are seldom seen open. E. fluitans is a slender grass-like aquatic plant, which forms quite dense mats. It has a small club-shaped inflorescence borne above the water at the apex of a rush-like stalk, 2 - 3 ins. long. It can easily be confused with the aquatic form of J. bulbosus which grows in close proximity to it, but in J. bulbosus the individual flower has a perianth of six leaves, whilst the Club-rush has an inflorescence of imbricated glumes. The terrestrial form of J. bulbosus occurs on the shores of the pond. Both forms root readily at the nodes and also often bear small shoots among the flowers or may proliferate without flowers.

Growing amongst the Marsh St. John's Wort are Eleocharis (= Scirpus) palustris (L) Roem. & Schult. (Common Spike Rush) and J. acutiflorus Hoffm. (Sharp-flowered Rush). This species is very similar to J. articulatus L. (Jointed Rush) and may be known by the leaves having "joints" or septa, which can be best seen by holding a leaf up to the light. There are also a few plants of Alisma plantago-aquatica L. (Water Plantain), with its long-stemmed ovate leaves and graceful whorled flower-stems rising above the water.

At the southern end, adjacent to the dam, upon which one can walk, is a colony of Sparganium simplex Huds. (Simple Bur-reed) with its decorative flower-spikes of greenish-yellow globular heads, males at the top, females below. Here also is Glyceria fluitans (L) R.Br. (Floating Meadow-grass) with its narrow panicles, and J. effusus L (Soft Rush) with yellowish green stems and loose clusters of pale green flowers. It was in the deep water here that Nitella translucens Ag. a member of the Characeae (Stoneworts) was observed by Mr. B.R. Baker in 1956, and in 1957 by Mr. A. Price. No trace of it has been seen this year. Claridge Druce in his "Flora of Berkshire" comments re this species "In a pond on Burghfield Common..... two years after I could not see a specimen", so this complete disappearance and probable reappearance seems the usual thing with this curious plant.

The shallow northern end of the pond at the time of writing (July) was comparatively clear of visible vegetation, but when the water level subsides this area is usually seen to be covered with a thick growth of Littorella uniflora (L) Aschers. (Shoreweed). This species, closely allied to the Plantains (Plantago) grows about three inches high and has linear, fleshy leaves, sheathing at the base. It flowers only when exposed to terrestrial conditions. The male flowers are borne on inch-long pedicels and have conspicuous stamens, whilst the female flowers are sessile and concealed amongst the leaves.

Hydrocotyle vulgaris L. (Pennywort or Sheeprot) occurs as a marginal plant. this very lowly species with flat, peltate leaves and minute flowers, hidden from sight is nearly related to the Umbelliferae, and was formerly included in that family. Other marginal plants which here lead a semi-aquatic, semi-

terrestrial life are Eleocharis (=Scirpus) multicaulis (Sm.) Sm. (Many-stemmed Club Rush), Sphagnum species, Ranunculus lingua L. (Lesser Spear-wort) and J. bufonius L. (Toad Rush).

The northern shore is gravelly, and rather devoid of vegetation for a few feet. Beyond this, however, may be found one of our less frequent species, Radiola linoides Roch (=millegrana Sm. (All seed)). This miniature plant, scarcely ever more than an inch in height, with numerous forked branches bearing tiny yellowish-green leaves and minute white flowers is barely discernible among the stunted Moor Grass and other species on the gently sloping bank. One has to literally crawl on hands and knees to find it.

The zones of vegetation are especially noticeable on the eastern shore; here are, firstly, stunted Molinia caerulea (L) Moench. (Purple Moor Grass) with its rather stiff bluish-green leaves and very dark purplish-green narrow panicles. Then a belt of Sieglingia decumbens (L) Bernh. (Heath Grass), followed by J. squarrosus L. (Heath Rush) with its dense tufts of rigid, wiry leaves and stiff stalks topped by a slightly branched cluster of rush flowers. The whole plant gives one an impression of stiffness. The shore flora now merges into the characteristic heathland flora, bracken, heather, birch and pine all come within a short distance of the pond. Three members of the Order Ericaceae are present, Calluna vulgaris (L) Hull. (Ling) with small pale purple flowers, Erica cinerea L. (Bell Heather) with larger rich purple flowers, and E. tetralix L. (Cross-leaved Heath) which has dainty waxy pink flowers. Ulex europaeus L. (Gorse) and U. minor Roth. (Dwarf Furze) make their golden-hued contribution to the splendour in their season, and among the humbler plants are Potentilla erecta (L) Rausch. (Tormentil) and Salix repens L. (Creeping Willow). Viola palustris L. (Marsh Violet) and Narthecium ossifragum (L) Huds. (Bog Asphodel) may be sought amongst the Sphagnum mosses near the stream which flows in a deep gully to the south.

Long may this pleasant spot retain its natural beauty and botanical treasures.

Micro-Fungi

By H. Owen, Ph.D.

To many people, "fungi" is more or less synonymous with "mushrooms and toadstools", and there is a good reason why this should be so: the toadstools and their allies are a group of fungi which generally produce large and often quite showy fruiting bodies, conspicuous to the naked eye. There are many more species of fungi, however, which do not produce these large fruiting bodies, but reproduce on a more microscopic scale, and this latter category is often termed the "micro-fungi", while the toadstools etc. may be called "macro-fungi".

When I found that the Society had records of macro-fungi collected on forays, but none of micro-fungi, and that no list of micro-fungi found in Berkshire existed, it was suggested that I should compile one. This I agreed to do, almost with alacrity I might say, since I thought such a list would be of considerable value, especially to those collecting fungi in this district. I was thinking, for example, of many of our Honours students in Agricultural Botany at the University who make collections of micro-fungi as part of their course.

Having begun collecting material for the list, my enthusiasm received something of a setback, when I found that the task was evidently to be a long and tedious one. However, it is proceeding, many sources have already been searched, and the list of records is steadily growing; I think it possible that it may be completed within the next year, or perhaps two. By "completed" I mean that there will be a compilation of available records - not, of course, that the list will be exhaustive as to the species of fungi to be found in the county; such records as exist refer to only a small fraction of the forms which are there to be found.

My chief purpose in writing this article is to advertize the preparation of the list, and to seek collaboration. In the first place, there may perhaps be some members who know of old collections or old records, or their whereabouts, which would furnish valuable information. Secondly, I have emphasized that no list compiled today, or for long to come, can be nearly complete; there are many, many species which have yet to be found here.

I wonder if there may be members who would like to extend their field of interest and collecting, who may perhaps even be looking for a new line - here is one which would yield very profitable results.

Before going further, there is one point which should be made clear; to study micro-fungi and to identify them, the use of a microscope is almost always essential. This is, to be sure, a drawback in that not everyone owns or has access to a microscope. But for those who do (even a low-

powered instrument will suffice for much work), a wonderful field of activity is opened, and the beauty of structures exhibited by micro-fungi when seen under the microscope far exceeds that of the toadstools (at least, I think so, but I must admit to being heavily prejudiced).

If the reader now asks 'Where are these micro-fungi to be found?', the answer 'Everywhere' is very nearly true. A small amount of organic matter and sufficient moisture are all they ask. So we may find them on foodstuffs which have been exposed for a few days to the air (there are many fungus spores floating in the air at all times), on decaying animal and plant remains, and in the soil. They may be found on timber and stone, especially in rather damp places; much of the darkening of the stone of which the Cambridge colleges are built is attributed to fungus activity. If our shoes or clothing are left for a few days in a damp state, fungi will grow on them. Not long ago the Hon. Treasurer of this Society sent me a specimen of shoe-cream on which a micro-fungus was growing (it proved to be Cladosporium herbarum, a common enough species, but the habitat was somewhat unusual; I have seen fungi on shoe-cream before, but not this one).

Vast numbers of micro-fungi are parasites of plants. These offer advantages to the collector, in that it is often easy to recognise their presence, and, further, since parasitic fungi are commonly restricted to one or a few plant species, it is often possible to identify a fungus with a high probability of accuracy, simply by reference to the host plant, though identifications made in this way need to be checked.

Not only are parasitic micro-fungi abundant everywhere, conspicuous, and relatively easy to identify compared with saprophytic moulds where the fungus itself must be identified from first principles, but many of them are of considerable economic importance on account of the plant diseases which they cause. This is particularly true of those attacking farm crops and garden plants; many more attack wild plants, and these are just as interesting to the collector, although their economic significance is small - it might be thought that fungus diseases of weeds would be a useful means of controlling weeds, but this has not been found practicable.

Every gardener will be well acquainted with the powdery mildews, which spoil the appearance of plants with a whitish overgrowth, and sometimes cause considerable damage to the leaves and other parts. Not many collectors seem to be interested in the mildews; perhaps this is because the same two or three species are always turning up, on different plants, but many more species actually exist, some of them not at all common.

More attractive fungi are the rusts. These parasites get their common name from the yellowish, reddish or brown spore pustules which are formed on the diseased plants, often in great abundance. Several types of spore are produced at different stages in the life cycle, and this is one of the features which make the rust fungi so interesting. Many of these fungi

spend part of their life cycle on one species of host plant and the remainder on another, quite unrelated, species; most commonly, one of the "alternate hosts" is a dicotyledon, and the other a monocotyledon. Here again, a large number of species are to be found; some, like the hollyhock, mint and antirrhinum rusts (*Puccinia malvacearum*, *P. menthae* and *P. antirrhini*), and the yellow rust of wheat (*P. glumarum*), are very common; others, especially some rusts of wild plants, are decidedly rare.

Allied to the rust fungi are the smuts, which acquired their name because they produce masses of black, sooty spores. These may be formed in the leaves, as in the smut of winter aconite (*Urocystis eranthidis*), and the stripe smut of *Glyceria maxima* (*Ustilago longissima*), which can easily be found by anyone walking along the towpath of the Thames during the summer, or the floral organs of the plant may be affected, as in the case of the common smut diseases of cereals, where the grains are entirely destroyed and replaced by masses of black fungus spores. One smut which makes its presence in the plant especially manifest in the flowers is the anther smut of carnations and other Caryophyllaceae, (*U. violacea*), which is perhaps most common seen on red and white campions. The fungus prevents the plant from forming pollen in the anthers, and produces its own spores there instead; not only that, but in the dioecious red campion the fungus suppresses the ovaries of female flowers - an unnecessary and malicious piece of damage, it would seem.

I have mentioned only some of the groups of micro-fungi which are there to be collected. A particular attraction about the rusts and smuts is that monographs of these fungi exist, which facilitate their identification. Grove's "British Rust Fungi" (1913) is long out of print, but may be consulted in libraries; it is a little out of date here and there, but a recent annotated list of British rusts was published in the Transactions of the British Mycological Society by Wilson & Bisby in 1954. For the smuts we have Ainsworth & Sampson's "British Smut Fungi", published in 1950. There is not space here to deal with the many other works which are of use in the identification of micro-fungi. I shall be happy to give assistance to anyone who decides to venture into this fertile field, and shall always be glad to receive specimens from Berkshire (preferably in fresh condition, with an indication of plant or whatever the fungus is growing on, locality and date). These should be sent to me at the Department of Agricultural Botany of the University.
