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# PROCEEDINGS



1978

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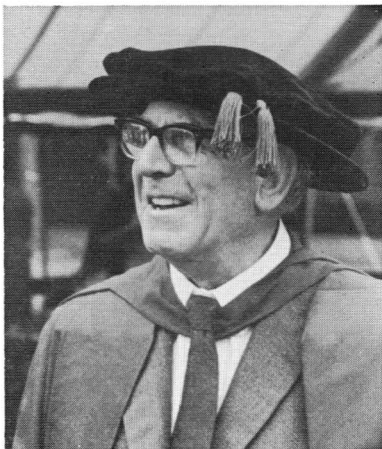
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## OBITUARY

### GERALD CLOUGH DUNNING



Dr. G. C. Dunning, F.S.A., founder member and Vice-President of the Society since 1941, died on 16th April, 1978. He was the son of James Dunning, of Ventnor, Isle of Wight, where as a child he first became interested in archaeology. Over the years he published articles on various local subjects, such as History of Niton, in these *Proceedings*, and often spoke of the debt he owed to the Society for having started him off on his remarkable career.

He was educated at Bedford Modern School, where he began his work in archaeology in the school museum, and University College, London, where his formal training was in anthropology and human anatomy. He began his archaeological career as Investigator of Building Excavations in the City of London for the Society of Antiquaries, and was elected a Fellow in 1935. He concurrently held the Esther Research Studentship at the London Museum. In 1934 he moved to Wales as Junior Investigator on the Royal Commission on Ancient Monuments and during the Second World War he served as a Senior Meteorological Officer in the Royal Navy. In 1946 he joined the Inspectorate of Ancient Monuments of the then Ministry of Works, where he initiated the first organisation for rescue of archaeological excavations and was later responsible for archaeological finds from the inspectorate's sites.

Dunning's early work in the 1920's and early 1930's covered a wide range of subjects from prehistoric to medieval, culminating in 1931 with his important work with C. F. C. Hawkes on the Belgae of Gaul and Britain. His interests then became concentrated on medieval pottery and over a period of forty years he published more than one hundred articles in learned journals, gradually building up for the first time a basic framework for the subject. Special topics studied included fifteen papers on Anglo-Saxon pottery, twenty-four on roof furniture and some fifty articles on various aspects of imported pottery, putting Britain into its continental setting. In 1968 he was awarded a D.Lit. by the University of London on this impressive series of publications.

In the first quarter of the century there had been little attempt to classify and date medieval pottery, but since the early 1930's Dunning was most successful in erecting a framework on which all our present work is based. The fact that this pioneer study has stood the test of time shows how firm were the foundations that he laid. Now large quantities of material are available for study from recent archaeological excavations, but as earlier work was on a smaller scale, it was a remarkable achievement to work out the sequence from so little material. After his retirement in 1965 his flow of publications continued unabated, each adding important new evidence more especially to various aspects of the medieval period, but also continuing his Iron Age and Roman interests. Colleagues owe him a great debt of gratitude not only for his published material, but also for his kindness, generosity, encouragement and friendly advice, always tendered with never-failing good humour.

At his special request, his ashes were scattered by Mr. J. Stafford on St. Catherine's Hill close to the Oratory that he loved, in the presence of his daughter, Tessa, Mr. and Mrs. J. Jones and Mr. and Mrs. O. H. Frazer.



VOLUME VII

PART III

**PROCEEDINGS**  
OF THE  
**ISLE OF WIGHT**  
**NATURAL HISTORY AND**  
**ARCHÆOLOGICAL SOCIETY**

**1978**



Printed by the Isle of Wight County Press, Newport, Isle of Wight



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## OFFICERS

(Elected at the Annual General Meeting on 10th February, 1979)

### President

Lieut.-Commander J. M. Cheverton, R.N.

### Vice-Presidents

Miss H. Blount, Ryde

Mr. F. W. Bright, M.B.E., Brighstone

Miss G. Bullock, Binstead

Mr. R. L. E. Ford, F.R.E.S., F.G.S.

Yarmouth

Mrs. D. Frazer, Brighstone

Mr. O. H. Frazer, Brighstone

Mrs. D. Millington, Ventnor

Mr. F. Neat, Ryde

Mr. D. Roberts, Wootton

Mrs. M. Seabroke, Newtown

Mrs. L. Snow, Shanklin

Mr. J. Stafford, M.A., Brighstone

Mr. V. Wadham, Newport

Miss T. White, Ventnor

Mr. R. Wyatt, Cowes

### Councillors

\*Mr. C. Beard

Miss M. Burnhill

Mr. L. Cox

\*Mrs. M. Cox

Mr. J. Cull

Mr. R. J. Edmonds

Mr. F. Goodley

Mrs. T. Goodley

\*Mrs. R. Goodyer

Col. A. B. Ilton

\*Miss D. Jones

\*Mr. R. Kettell

\*Mrs. C. M. Manchee

\*Dr. D. I. Morgan-Huws

\*Miss A. Wayte

EX-OFFICIO: A Curator of Carisbrooke Castle Museum; Bird and Botany Recorders; the Librarian; the Chairman of the Local Look Sub-Committee; all Section Leaders; the Schools Liaison Officer, the Countryside Officer, I.W.C.C.; the Cultural and Amenities Officer, I.W.C.C.

*\*Previously elected*

### General Secretary

Mrs. J. Greaves, 42 Fishbourne Lane, Ryde, I.W.

### Membership Secretary

Miss H. M. Blount, 50 Queen's Road, Ryde, I.W.

### Minuting Secretary

Mrs. L. Snow, Ein Shemer, Upper Hyde Farm Road, Shanklin, I.W.

### Programme Secretary

Mrs. L. Prangnell, Beggar's Roost, Five Houses, Calbourne, I.W.

### Treasurer

Mr. D. Hunnybun, 40 Churchill Road, Cowes, I.W.

### Auditors

Mr. N. Preece, Cowes

Mr. K. D. Riddell, Northwood

**Conservation Officer**

Mrs. D. A. Frazer, Mottistone Mill, Brighstone, I.W.

**Editor of Proceedings**

Mr. O. H. Frazer, Mottistone Mill, Brighstone, I.W.

**Chairman, Local Look Committee**

Mrs. K. Wadham, Gullsway, Castle Court, St. Lawrence, I.W.

**Schools Liaison Officer**

Mr. P. Ewbank, Yew Tree Cottage, Victoria Road, Freshwater, I.W.

**Society Representatives**

Council for the Protection of Rural England – Mrs. D. A. Frazer  
 Countryside Advisory Panel, I.W.C.C. – Mr. J. Stafford  
 Hampshire & I.W. Naturalists' Trust, Ltd. – Mr. J. Stafford  
 Isle of Wight Society – Miss K. Page  
 Newtown Local Nature Reserve Management Committee – Mrs. D. Frazer  
 World Wildlife Fund – I.W. Supporters' Group – Mr. J. Stafford  
 I.W. Archaeological Committee – Miss M. Middleton

**Bird Recorder**

Mr. J. Stafford, M.A., Westering, Moor Lane, Brighstone, I.W.

**Botany Recorder**

Mr. B. Shepard, 87 Elm Grove, Newport, I.W.

**Librarian**

Mrs. D. Frazer, Mottistone Mill, Brighstone, I.W. PO30 4AW

*(Publications sent in exchange, or enquiries re back numbers of Proceedings available, should be addressed to the Librarian, I.W. Natural History and Archaeological Society, c/o Agriculture House, 66 Carisbrooke Road, Newport, I.W. PO30 1BW)*

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## SECTION LEADERS

---

**Access to the Countryside**

Mrs. C. Richardson, Westwood, 133 Castle Road, Newport, I.W.

**Archaeology**

Miss M. G. Middleton, Mirables, St. Lawrence, Ventnor, I.W.

**Botany**

Miss K. Page, 42 Carisbrooke Road, Newport, I.W.

**Entomology**

The President, until Leader is appointed

**Geology**

Dr. A. Insole, Museum of I.W. Geology, County Library, Sandown, I.W.

**Mammals, Reptiles and Amphibians**

Mr. O. H. Frazer, Mottistone Mill, Brighthstone, I.W.

**Microscopy**

Mr. D. Roberts, The Bee Farm, Lushington Hill, Wootton, I.W.

**Ornithology**

Lieut.-Cdr. J. M. Cheverton, 6 Westhill Drive, Shanklin, I.W.

**Seashore**

Mr. L. Batty, Medina Valley Field Centre, Dodnor Lane, Newport, I.W.

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**ISLE OF WIGHT NATURAL HISTORY AND  
ARCHAEOLOGICAL SOCIETY**

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**RULES**

*As Revised at the Annual General Meeting, February 1979*

1.—**Name.** The Society shall be called "The Isle of Wight Natural History and Archaeological Society".

2.—**Objects.** The Objects of the Society shall be, for the benefit of the public:

- (a) To promote the study of Natural History and Archaeology especially in relation to the Isle of Wight.
- (b) To promote in every possible way the conservation of the flora and fauna of the Isle of Wight, and the proper preservation of all objects of special archaeological and geological interest.

3.—**Ancillary Powers.** In furtherance of the foregoing objects, but not otherwise, the Society shall have power:

- (a) To place on record such discoveries and observations of scientific value or interests as may be considered worthy of note.
- (b) To act in close co-operation with other Societies and Institutions whose objects or activities are similar to those of the Society.

4.—**Scope of Activities.** In order to attain the objectives listed above, the activities of the Society shall include the making of excursions to all parts of the Island under leaders or directors; the holding of meetings for exchange of information, at which lectures and addresses shall be given, papers read and discussed; the showing of films and slides; the holding of exhibitions; organised field work, and by any other means.

The Society shall, at such intervals as may be arranged by the Council, publish *Proceedings*, in which shall be printed, at the discretion of the Editor, such discoveries and observations made by members as may be considered worth placing on record, and issue and support such periodicals and other publications, as the interests of the Society require.

5.—**Membership.** The Society shall consist of Ordinary Members, Honorary Members, and Student Members.

6.—**Ordinary Members.** Any person not less than 15 years of age shall be eligible for election as an Ordinary Member.

Ordinary Membership shall consist of:—

(i) **Single Membership.**

(ii) **Family Membership** which shall include all members of a Family in one household.

All Members are entitled to attend all meetings of the Society. Each Single Member shall receive a copy of the current issue of *Proceedings*, Bulletins and Notices. In the case of Family Membership, only one copy of current *Proceedings*, Bulletins and Notices shall be sent to the Family.

As from January 1st, 1977 the Annual Subscription is:

(i) **Single Membership** – £2.50 per annum.

(ii) **Family Membership** – £3.50 per annum, payable in advance and due on the 1st January in each year.

A candidate for membership must forward a written application to the Membership Secretary on a form provided for the purpose, and such application will be accepted subject to approval at the next meeting of the Council.

Members joining the Society after July 31st shall pay a subscription of half the annual subscription, providing that they pay the next year's subscription at the same time.

7.—**Resignation of Members.** Any member wishing to resign must intimate his or her intention to the Membership Secretary before the end of the calendar year for which the subscription has been paid.

8.—**Honorary Members.** The Council may recommend the title of Honorary Membership, as they think fit; such title to be ratified at the Annual General Meeting.

9.—**Student Members.** Schools may be affiliated to the Society. This will entitle interested pupils to attend meetings of the Society as Student Members, and to take part in any of the activities of the Society specially organised for their benefit.

High Schools will receive two copies of the *Proceedings* and have the right to cast two votes at general meetings. Middle Schools will receive one copy only of the *Proceedings* and have the right to cast one vote at general meetings. Fees for all schools, and conditions of entry for Schools other than High Schools or Middle Schools to be at the discretion of the Council. Students may make special application for reduced subscription.

10.—**Expulsion of Members.** In the event of a member making himself or herself objectionable to other members, the Council shall be empowered to expel such member from the Society, but the member concerned shall have the right to appeal to the Annual General Meeting.

11.—**Officers.** The Officers of the Society shall consist of a President, a General Secretary, one or more Assistant Secretaries as required, a Treasurer, a Conservation Officer and an Editor of *Proceedings*. The work of the officers shall be entirely honorary, and any posts may be combined in one officer if necessary.

12.—**Council.** (a) The management of the affairs of the Society shall be in the hands of a Council consisting of the Officers for the time being, as provided in rule 11, fifteen elected members, a Curator of Carisbrooke Castle Museum, the Recorders, the Librarian, a representative of each of the Sections of the Society, the immediate Past President, the Chairman of any sub-committee established under clauses 12b and 12c and the Director of Cultural Services of the I.W. County Council. The Council shall hold meetings not less than three times a year, and special meetings at such other times as may be found necessary. Seven members shall form a quorum.

(b) The Council shall have power to appoint from their own body, with or without the addition of other members, the following working Committees, to which shall be delegated such powers and duties as may be laid down by Council in Standing Orders for those Committees:—

- (i) Meetings Committee – to arrange the future programme for submission and approval by the Council.
- (ii) Conservation Committee – to assist the Conservation Officer in the conservation of the flora and fauna.
- (iii) Publication and Library Committee – to assist the Editor of *Proceedings*, and submit reports of meetings, excursions and exhibitions to the Press. One member of this committee shall be appointed as Librarian, to be responsible for the Society's books, documents, and other records in the County Seely Library, or wherever they may be.
- (iv) Field Activities Committee – to organise and control field activities.
- (v) Junior Activities Committee – to organise activities especially for Student Members.

(c) The Council may also appoint from their own body, with or without the addition of other members, such Special Committees as they may determine, and shall define all duties and powers of such committees and the number of members to form a quorum thereof, and may delegate any of their powers and duties to such committees, provided there is a two-thirds majority vote of those present, and subject to annual confirmation.

(d) The President, General Secretary and Treasurer shall be *ex-officio* members of all Working and Special Committees.

13.—**Recorders.** The Council may appoint, as required, any members of the Society that they may consider suitable, to act as Official Recorders, and the appointments may be cancelled at the discretion of the Council. The Recorders shall be *ex-officio* members of the Council, and all records submitted in confidence shall only be made public with the agreement of those concerned and at the discretion of the Recorder.

14.—**Election of Officers, Vice-Presidents and Council.** The President shall be elected for one year, but shall be eligible for re-election for a total period not exceeding three consecutive years, after which he or she shall not be eligible for election until one year has elapsed.

Vice-Presidents not exceeding 15 in number may be elected and shall retire annually but shall be eligible for re-election. Only such Vice-Presidents as are elected to the Council shall serve thereon.

The 15 elected members of the Council shall be elected for a period of three years. Five of these members shall retire annually and shall not be eligible for re-election immediately, and of the five newly elected members each year, at least two shall be

members who have not been on the Council before in any capacity.

The Council may co-opt any member for any special purpose which may arise. The Council shall have power to fill any casual vacancy which may occur in its number until the next Annual General Meeting.

15.—**Meetings.** The General Meetings of the Society shall be held from time to time as arranged by the Council. A circular shall be sent to each member containing information as to Meetings, Excursions, etc., to be held during the ensuing session. The General Secretary shall keep a Minute Book, and enter therein an account of the proceedings at all business meetings of the Society.

16.—**Annual General Meeting.** An Annual General Meeting shall be held in the month of January, at which the reports of the Secretary and Treasurer will be submitted for approval, and the election of Officers, Vice-Presidents and Members of the Council for the ensuing year will take place. Twenty members shall form a quorum.

17.—**Accounts.** The Accounts of the Society shall be audited by two members who shall be elected at the Annual General Meeting.

18.—**Chairman at Meetings.** The President, or in his absence one of the Vice-Presidents, shall preside at all meetings of the Society. In the event of the incapacity of the President, a Past President shall act as President until the next Annual General Meeting.

19.—**Visitors.** Any member may introduce a visitor at any meeting or excursion of the Society, but such privilege must not be extended to any one visitor on more than two occasions in the course of the same year.

Where the numbers for any event are restricted, priority shall be given to members.

20.—**Alteration of Rules.** Alteration of the Rules shall only be made at the Annual General Meeting. Notice of any alteration to be proposed must be forwarded to the Secretary, in writing, 21 days at least before the meeting, and a copy of such proposals shall be sent to each member prior to the meeting. No alteration shall be made which would cause the Society to cease to be a charity at law, and no alteration shall be considered until the Charity Commission have been consulted.

21.—**Dissolution.** Any extra assets remaining upon dissolution after payment of debts shall not be distributed amongst members, but shall be transferred to a charity having objects similar to those listed in Rule 2.

## NEW MEMBERS

*(Elected to the Society during 1978)*

- MR. F. E. BASFORD, Cowes }  
MISS V. BISHOP, Cowes } Now MR. AND MRS. F. BASFORD, 81 Hunnyhill, Newport.
- MR. R. A. BENTON, 52 Carter Avenue, Shanklin.  
MRS. E. BISHOP, Pentwyn, Afton Road, Freshwater Bay.  
MRS. E. A. BOXALL, Woodpeckers, St. Lawrence, Ventnor.  
MR. AND MRS. R. J. BUNGEY AND FAMILY, Windhover, New Road, Brighstone.  
MR. AND MRS. D. E. BURT, 5 Station Road, Yarmouth.  
MISS M. CLAMP, Nurses' Home, 3 St. Mary's Hospital, Newport.  
MRS. D. DAVIS, 34 St. Catherine Street, Ventnor.  
MR. L. R. DOBSON, 123 Furlongs, Newport.  
MR. AND MRS. R. J. EDMONDS, Uphill, Seven Sisters Road, St. Lawrence, Ventnor.  
MR. AND MRS. R. J. GARRETT, Blandings, 54 Long Lane, Staplers, Newport.  
MR. AND MRS. D. GORDON, Allanmore, Undercliff Drive, St. Lawrence, Ventnor.  
DR. AND MRS. J. C. GRAHAM-STEWART, Mulberry Grange, St. Boniface Road, Ventnor.  
MRS. K. E. HIND, Sunserae, Seven Sisters Road, St. Lawrence, Ventnor.  
MISS M. HORNETT, Applecombe, Park View Close, Wroxall, Ventnor.  
MR. R. W. AND MR. P. D. HUNT, Well Close, Blackbridge Road, Freshwater Bay.  
MR. H. F. JORDAN, 40 Alexandra Road, Ryde.  
MISS M. A. LOVEGROVE, Hurdcot, The Fields, Niton.  
MR. AND MRS. P. MCANDREW AND FAMILY, Rolling Thunder, Blackbridge Road, Freshwater Bay.  
MR. AND MRS. N. T. MCHARG AND FAMILY, Wilbercote, Heathfield Road, Bembridge.  
MR. AND MRS. N. MACHIN, 90 Steyne Road, Bembridge.  
MR. AND MRS. T. C. MARTIN, Yaffes, Youngwoods Way, Alverstone Garden Village, Sandown.  
MISS P. A. MARTIN, 63 Grange Road, East Cowes.  
MISS D. MATTIN, 49 Venner Avenue, Northwood, Cowes.  
MR. AND MRS. W. MILLS, Hatherwood, Cliff Road, Totland Bay.  
MISS P. MOORE, 19 Steyne Road, Bembridge.  
MR. CAVENDISH MORTON, 6 Fairhaven Close, Lane End, Bembridge.  
MISS J. D. MORETON, Greenlydd Close, Niton.  
MR. J. MOREY, Hillside, Alverstone, Nr. Sandown.  
MISS E. M. L. PATTISON, Herveys, Church Street, Niton.  
MR. AND MRS. B. ROBBINS, Gayforest Kennels, Porchfield (Rejoined).  
MR. AND MRS. A. C. ROBERTSON, Brookland Lodge, Park View Close, Wroxall, Ventnor.  
MISS P. SIBLEY AND MISS M. FISK, Greens Butt, Upper Lane, Brighstone.  
MR. A. SILCOX, 9 Broadway, Sandown.  
MR. AND MRS. R. SMITH, 12 Rooke Street, Parkhurst, Newport.  
DR. J. SPENCER-PEET, 45 Pebworth Road, Harrow, Middlesex.  
DR. AND MRS. G. D. STEWART AND FAMILY, Lamma Field, Baring Road, Cowes.  
MISS J. TANNER, Flat 6, 10 Queen's Road, Ryde.  
MR. AND MRS. M. THOMAS, 46 St. Edmund's Walk, Creek View, Wootton.  
MR. G. H. F. WALLS, 17 Windmill Close, Ryde.  
MR. AND MRS. A. J. WOOD AND FAMILY, Rostrevor Hotel, Sandown Road, Lake.  
MR. D. R. WOODS, 9 Lilley Road, Liverpool, Merseyside.  
MRS. L. A. YATES, Hudlow Cottage, 11a Salem Road, Shanklin.

# STATEMENT OF INCOME AND EXPENDITURE for year ended 31st December, 1978

	1977	INCOME	£	p	£	p		1977	EXPENDITURE	£	p	£	p
		Balances at 1.1.78						—	Loan to Flora Fund	...	...	1100·00	
		Current Account ... ..			189	40		1080·00	Proceedings	...	...	—	
		Deposit Account ... ..			266	31		143·00	Duplicating and Printing	...	...	130	46
		National Savings Bank—						203·00	Library Rent	...	...	209	30
		Investment Account			2600	00		61·00	Library Expenses	...	...	51	87
		Cash in Hand ... ..			28	63		11·00	Hire of Halls	...	...	28	53
		Hutchinson Memorial—						36·00	Subs to other Societies	...	...	39	30
		Deposit Account ... ..			122	55		31·00	Insurances	...	...	34	40
	3024·00						3206·89	121·00	Petty Cash and Sundries	...	...	138	34
	—	Interest on National Savings							<b>Total Expenses</b>				1732·20
		Bank Account—1977				39	00		Balances at 31.12.78				
	142·00	Interest on Deposit Account				61	18		Current Account	...	...	141	02
	—	Interest on N.S.B. Account				155	99		Deposit Account	...	...	3262	48
	11·00	War Stock Interest				11	28		Cash in Hand	...	...	35	73
	1052·00	Members' Subscriptions				1062	00		Hutchinson Memorial Deposit Account	...	...	129	67
	95·00	Tax Refund on Covenants				86	05	3207·00					3568·90
	2·00	Sales of Proceedings				9	30						
		Local Look—Receipts			1506	65							
		Less Expenses			890	81							
	538·00					615	84						
	6·00	Sale of Badges				3	20						
	2·00	Donations				6	50						
	10·00	Profit on Teas				8	75						
	6·00	Interest on Hutchinson Deposit				7	12						
	—	Bequest—Dr. Dunning, decd.				25	00						
	5·00	Sundries				3	00						
		<b>Total Receipts</b>					2094·21						
		Investment—											
		£322·76 3½% War Stock											
		Value 31.12.78—£100·00											
		Equivalent yield of 11½%											
	<u>£4893·00</u>						<u>£5301·10</u>	<u>£4893·00</u>					<u>£5301·10</u>

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Audited and found correct

(Signed) K. D. RIDDELL }  
 N. PREECE } *Hon. Auditors*

(Signed) R. D. HODGSON  
*Hon. Treasurer*

## GENERAL MEETINGS, EXHIBITIONS AND EXCURSIONS

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### **General Meeting on 17th February, 1978.**

At a well-attended meeting Mr. Colin Beard, a biologist and teacher at Sandown High School, enthralled members with a talk about his experiences as a member of an expedition to the Amazon, which was arranged by degree students of the Portsmouth Polytechnic in 1975. With little funding the expedition was planned by the students and equipped with the help of various manufacturers, whose products were taken and used in the jungle.

Mr. Beard outlined the progress of the party from Barbados, through Guyana, to Manaus, and explained how administrative delays kept their equipment in bond at Manaus, until the time allowed for the trip had almost expired, and their money was almost expended. He continued by telling members how help was given by two American missionaries, and how, finally, the team was able to live and work in the jungle with a family of Indians in most arduous conditions.

The talk was lavishly illustrated with superb slides, which included views of many species of birds, mammals, fish, snakes, spiders, butterflies, caterpillars and other insects, some most gruesome to see. Tape recordings of jungle noises added an authentic background to the talk, and the lecturer provided specimen scales from a fifteen feet long freshwater fish, some pieces of freshwater coral and magazines containing many photographs taken by members of the expedition.

Mr. Beard, who was thanked by the President, then answered members' questions.

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### **Visit to the Medina Valley Field Centre on 19th March, 1978.**

In spite of persistent rain, there was a good attendance when members visited the Medina Valley Field Centre in Dodnor Lane, near Newport.

Members first assembled in the lounge, where they were addressed by Mr. Leslie Batty, the Director of Field Studies at the Centre, who gave a short history of the development of the Centre from its foundation in 1962 as the Christian Sailing Centre and later diversification into other activities such as Arts and Crafts and, more recently, Field Studies. It was to encompass this variety of activities and to ensure a wider appeal that the name of the Medina Valley Field Centre was adopted. Although sailing was still the major activity, an increasing number of field study courses, ranging from a weekend to a full week, with occasional expedition courses further afield lasting up to three weeks, were being organised. Owing to its favourable position most of the courses were concerned with marine biology and ranged from general introductory courses to 'A' level and more specialised topics, such as Estuary Ecology. An interesting development was the inclusion of some integrated courses linking all the activities of the Centre – sailing, art and biology – together. All courses included a comprehensive programme of field and laboratory work, illustrated lectures with slides or films. Mr. Batty stressed how they were much concerned with the importance of conservation, and he intended that the information they obtained through carrying out these field study courses would be made available to members of the Society in the interests of future conservation.

Members then toured the centre and were much impressed by the high standard of living and laboratory accommodation. After light refreshments, members were then shown a film on "Bird Migration", after which they examined a comprehensive range of literature and books on display. The President thanked the speaker for a most interesting afternoon.

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#### **Visit to Norris Castle, East Cowes, on 1st April, 1978**

There was a good attendance when members and friends visited Norris Castle, East Cowes, by special arrangement with the owners, Commander and Mrs. R. W. B. Lacon, who personally conducted the members in two groups round the Castle.

The Castle itself, designed and built from 1795 to 1805 by James Wyatt, the premier architect of his day, remains virtually unaltered from its original form. Solidly constructed of local stone, it has cavity walls and, although large and imposing from the outside, the living quarters are quite modest and barely large enough to contain the multiplicity of "bygones" displayed for public view. These include some items of original furniture and furnishings, augmented by the personal collections of the owners over many generations brought here from former residences in Kent and Norfolk.

After tea, the President expressed the thanks of members to Commander and Mrs. Lacon for a most interesting visit.

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#### **Study of Red Squirrels on 5th to 7th May, 1978.**

In spite of the inclement weather, members turned out in good numbers for what can best be described as a "Red Squirrel Weekend". This started on Friday evening, when members heard an illustrated lecture on Red Squirrels by Dr. A. M. Tittensor, Senior Scientific Officer with the Ministry of Agriculture and Fisheries at Chichester. Introducing the speaker, the President stated that, although he was now engaged on research into the post-myxomatosis increase of rabbits in East Anglia, Dr. Tittensor was the acknowledged authority on Squirrels, on which he had written papers for the *Journal of the Zoological Society of London*, the *Forest Record No. 101* on the Red Squirrel for the Forestry Commission and, more recently, the chapters on Squirrels in the *Handbook of British Mammals*, published by the Mammal Society.

The serious decline of the Red Squirrel in southern England, the speaker stated, is a local rather than a national problem, as it is still abundant in northern Wales and in Scotland, where some measure of control has to be exercised. It is found in most wooded parts of Eurasia, from Spain to Japan, and from the tree-line in Scandinavia south to the Mediterranean. There had been some considerable fluctuations in Red Squirrel populations during the last 150 years reaching a peak of abundance in the early years of this century, but the serious decline in southern England since the 1930's has resulted in its near extinction in this area, so that the Island is important in having the only really viable population still in existence in this region. The chief reason for its decline would seem to be the destruction of its preferred habitat, which is coniferous woodland, and plantations must be of the right age and of considerable area, since an adult squirrel will consume some 200 pine cones per day. This was but

one of the many details of feeding habits, activity periods and social behaviour, which were explained so lucidly by the lecturer. The introduction and subsequent spread of the American Grey Squirrel had not in itself been responsible for the decline of the Red Squirrel, for the latter had disappeared from some areas where the Grey Squirrel was not found, and in some areas both species were found together. It was more a case of suitability of habitat, and the replacement of coniferous woodland with predominantly deciduous species, such as beech, and the planting of amenity fringes, all favoured the increase of the Grey Squirrel. In conclusion he stressed the importance of maintaining the areas of coniferous woodland, particularly of Scots Pine, if we wished to keep a healthy population of Red Squirrels in the Island.

The lecture was followed by many interesting questions and discussion, and the grateful thanks of all present was expressed by Mr. O. H. Frazer, the leader of the Society's Mammals, Reptiles and Amphibians Section, who also gave details of the field meetings organised for the following days.

On the Saturday members met at 8 a.m. in Parkhurst Forest, which had previously been surveyed by Mr. C. Burland and his pupils at Kitbridge Middle School with a view to choosing the best sites for watching squirrels. The party were therefore divided into three equal groups and each followed a different route through the forest under the leadership of Dr. Tittensor, Mr. C. Burland and the President. Many dreys were found and recorded on maps provided for the purpose, and a total of nine Red Squirrels were observed. Unfortunately it came on to rain later in the morning, but further observations of Red Squirrels were made in private grounds at East Cowes in the afternoon and at Wootton on Sunday morning, and a number of photographs, both still and cine, were taken.

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#### **Special Excursion to Parkhurst Forest on 25th April, 1978.**

Members with specialised knowledge and interest met at Parkhurst Forest at the invitation of Mr. Clive Burland and Mr. M. Sherwood, the Head Forester, with a view to assisting in the planning of an Educational Nature Trail for use by local and visiting schools. The proposed route was carefully surveyed and the features of special interest were noted.

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#### **Visit to Kew Gardens on 20th May, 1978.**

In ideal weather the party, accompanied by the President and Miss K. Page, the leader of the Botany Section, had a full day of interest exploring the world famous grounds. The rhododendrons and azaleas were at their best. Much interest was shown in the beds showing plants in their natural orders, and a special botanical display in the Orangery. Others were fascinated by the exotic plants growing in the Palm House. Among the formal displays, the Queen's Garden of Kew Palace, containing only plants which were in cultivation in this country in the 17th century, attracted much attention.

The excellent arrangements for the outing were made by the Programme Secretary, Mrs. L. Prangnell, who was thanked by the President.

**Excursion from Brading to Culver on 11th June, 1978.**

The President led members on a field outing from Brading to Centurion's Copse and Culver Down, returning by Redcliff and Yarbridge. After admiring several species of damselflies and dragonflies, the party watched a Sparrowhawk with prey, listened to Blackcaps, Garden, Sedge and Reed Warblers, saw a Pheasant with newly-hatched young, and then slipped quietly past a large bull to eat a picnic lunch by the Yarborough Monument. During the afternoon Purple Broomrape, Clustered Bellflower, Yellow-horned Poppy, Nottingham Catchfly, Bee Orchids and a Stoat were seen, and a visit was made to the archaeological excavation site at Redcliff, where Dr. Allan Insole and Robert Hodgson reported on recent activities. This was followed by sightings of several Cream-spotted Tiger Moths, a few Glanville Fritillaries and a very large Adder, which was digesting recently eaten prey. Further views of another Sparrowhawk chasing Starlings rounded off a very successful meeting.

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**Excursion to St. George's Down on 8th July, 1978.**

Mr. B. Shepard led members on a walk of general interest from Shide to St. George's Down by way of the old rail track and Standen Lane. At the summit Mr. Shepard explained how gravel and ballast were transported from the down to Blackwater and used in the construction of the I.W. Railway. He also outlined plans for the recovery of the down as the gravel pits became worked out. Returning through Burnt House Lane, Mr. Shepard explained the "Three road system", pointing out the Roman, Saxon and Elizabethan routes into Newport, noting that the older farms were all sited on the old Saxon route and on a natural spring line. The walk was rounded off with a visit to Pan Pit, a Site of Special Scientific Interest, where many species of chalk-loving plants were seen.

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**Private View of Local Look on 30th July, 1978.**

In welcoming a large attendance of members to this meeting, the President paid tribute to the immense amount of hard work done by many members and made special mention of Mr. R. K. Pilsbury, F.R.P.S., whose outstanding work was the main feature of this year's Exhibition. Mrs. K. Wadham, Chairman of the Local Look Committee, thanked the members who had offered their services as stewards and gave details of the organisation to ensure a smooth running of the exhibition.

Mr. O. H. Frazer, the over-all organiser, gave details of the individual displays, which were well explained in the official Guide to the Exhibition, copies of which were provided, and Mr. Pilsbury explained the significance of the meteorological displays kindly provided by the Meteorological Office, which formed the central feature of the Exhibition.

Members then examined the displays and a working party was formed to complete the folding and stapling of the Guides.

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**Exhibition Local Look at Brook from 31st July to 31st August, 1978.**

A report of this, the 18th "Local Look" Exhibition, appears later in these *Proceedings*.

### Excursion to Freshwater Bay on 16th September, 1978.

A large number of members met at Freshwater Bay for an extended monthly meeting involving the study of Freshwater Marsh, Geology and the Seashore.

The President introduced the leader for the first part of the meeting, Mrs. Dorothy Frazer, who gave a short history of the Freshwater Marsh before the party walked down Afton Road, noting many items of interest. Unfortunately it was not possible to obtain a specimen of the Bladderwort, which is found in the river here, but there were many examples of the Cigar Gall, caused by a two-winged fly, *Lipara lucens*, which aroused considerable interest. Members then visited the new Nature Walk provided by the South Wight Borough Council, on the management committee of which the leader is the Society's representative, and the members were much impressed by this excellent amenity. A small oak tree, which was almost covered with Knopper Galls, caused by the gall wasp, *Andricus quercus-calicis*, which was first recorded in the Medina Valley in 1976 (see *Proceedings*, Vol. VII, part I, page 45), gave an added interest. The party then returned to Blackbridge, where a short stop was made, before continuing along the footpath leading back to Freshwater Bay.

After some light refreshment, the party then reassembled on the sea wall. In the unavoidable absence of Dr. A. Insole, who had unfortunately been called away to a conference, Mr. O. H. Frazer drew attention to some of the geological features of the area. He pointed out the lines of flints in the chalk cliffs, which gave a clear indication of the angle of tilt due to the folding of the rocks to form the Brixton anticline some 20 million years ago, and also drew attention to the wide river valley of the Yar, which must have been caused by a substantially larger river than existed at present, which some few thousand years ago must have drained a considerable area of land to the south-west of the Island, which has since been eroded by the sea. This erosion was still continuing, as could be seen in the stacks to the east of the bay, where the Stag and Arch Rocks had been joined by a third, the Mermaid Rock, which was detached from the cliff as recently as 1968, showing that geological features were not all concerned with the distant past, but involved processes which were still continuing. The chalk cliffs on both sides of the bay were of particular interest, as they yielded some very excellent fossils. (See plate opposite).

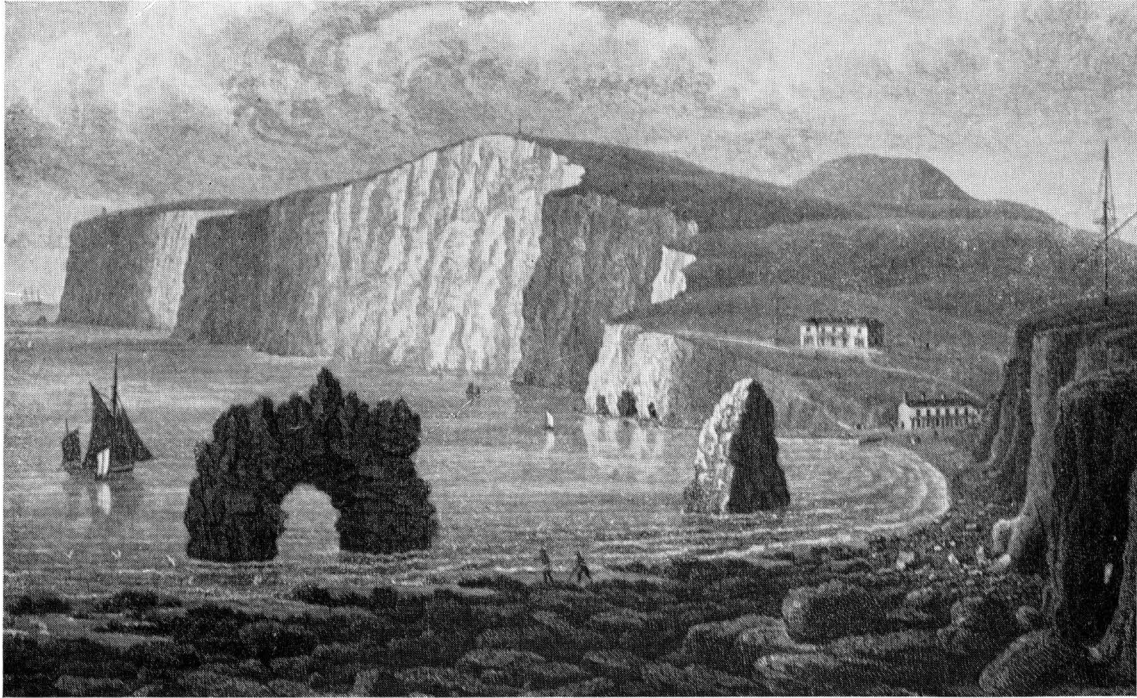
The party then descended to the beach on the sheltered west side of the bay, and examined the rockpools under the leadership of Mrs. Jean Greaves. A number of interesting specimens were seen, including three species of crabs, two species of sea-anemones, marine worms, molluscs and seaweeds.

The President thanked the leaders on behalf of members for a very interesting meeting.

### Excursion along Lukely Brook on 16th October, 1978.

Members met at Carisbrooke Castle to study and walk along the length of Lukely Brook. Mr. Bill Shepard led the walk and gave members a detailed account of the history of the uses made of this small stream and of its importance in times past to the community.

Starting at the ford by Froglands Farm, he pointed out the site where a paper mill had been started in the 18th century. We then walked to Clatterford and looked up the water meadows to Plaish and Bowcombe, where the springs which feed the Lukely



Freshwater Bay – 1840 – from an engraving by G. Brannon

Brook rise. The name 'Lukely' means 'shining way', and this brook is of clear sweet water.

Walking down Millers Lane, Mr. Shepard showed the party the reed-beds which originally formed a huge mill pond for the Castle Mill. This pond covered two acres and the water from it worked the mill below the Castle. The present mill on that site is Kent's Mill and it is now derelict. Below this mill is the Water Pumping Station and a large pond still exists today. Priory Mill stood by the pond and the mill race is still visible. Now the Lukely water is pumped from this point and provides much of the Newport area with its water, so the present day stream diminishes in size from here.

The walk continued to Wellington Road and then by the footpath skirting the Vectis Field to Recreation Ground Road. West Mill stands on the Lukely Brook and behind it are reed-beds filling what used to be its mill pond, but now it is silted up. By following Westminster Lane we reached Westminster Mill, and the Lukely Brook still flows under this mill and then continues past the Dairy, which was the site of Home Mill, and flows to Towngate Mill and St. Cross Mill, which are at the foot of Hunnyhill.

The stream is then diverted and flows through the Brewery and then down to the Quay at the back of the old Warehouses. At this point it is tidal. The Brewery used the stream to transport their barrels to the Quayside Warehouse to be stored for shipping. This warehouse has recently been acquired and converted into a "Visual Arts Centre". The lower floor has metal rails to roll the barrels on, and these lead to the quayside.

Mr. Shepard stressed the importance of the Lukely Brook in providing water to drink, power for seven flour mills, a paper mill and to serve the brewery. Its importance to the community in days past, and even today, makes a vital contribution to the history of Newport.

#### **Fungus and Foray Exhibition on 28th and 29th October, 1978.**

There was a good turn-out of members and friends at Firestone Copse, by kind permission of the Forestry Commission, to collect specimens of fungi.

The President introduced the leader, Mr. O. H. Frazer, who gave a brief outline of the kinds of fungi to look for, illustrated with specimens already found. In order to cover as much ground as possible, members divided into some seven groups, each under its own leader, to explore different parts of the area. Although at first, due to the unseasonable weather, fungi seemed to be in very short supply this year, by dint of much searching all the groups were able to fill their trays with an impressive collection of specimens. These were taken to the Teachers' Centre, Newport, where the leader placed representative specimens on grey paper to obtain spore-prints overnight to aid in the identification of species.

On Sunday morning the specimens were identified by the leader, with the considerable help of Dr. A. Insole and Messrs. L. Cox and G. Wells, while at the same time Mr. and Mrs. R. Snow mounted specimens of spores on microscope slides. The specimens, augmented by a few others from Niton and Newtown, were then arranged in systematic order to form a display which was open to members and friends in the afternoon.

The leader spoke on the specimens obtained, which numbered some 85 species, and showed by means of coloured slides some of those which were usually found,

but were absent this year. After light refreshments, kindly prepared by Mrs. L. Prangnel and Mrs. B. Hodgson, members were able to view the display and examine the mounted specimens under the microscopes provided by Mr. and Mrs. Snow and Mr. D. Roberts, leader of the Microscope Section. A further six specimens were subsequently sent to the Royal Botanic Gardens at Kew for positive identification, and as a result it is possible to add three new species to the Isle of Wight list – *Tyromyces ellipsosporus* (Pilát), *Coriolellus serpens* (Fr. ex Fr.) Bond. and *Hydnum rufescens* L. ex Fr.

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#### **General Meeting on 18th November, 1978.**

“What do you mean by Conservation?” was the question posed for discussion at this meeting, held at the Teachers’ Centre, Newport. A number of speakers gave their views and answered questions.

The President, in his opening remarks, referred to the many changes which had occurred and, whether we liked it or not, would continue to occur in the countryside. Although in the past change was comparatively slow, the main threat to our wildlife today was in the rapid speed of change, which did not allow plants and animals time enough to adapt to the new conditions. He listed some of the options open to conservationists, such as the management of selected areas designated as nature reserves, concentration on the preservation of certain rare species or, what he felt might well be best, the wider application of conservation measures to ensure a diversity of habitats in the Island as a whole. There were, however, many conflicting views, since the creation or maintenance of one kind of habitat invariably meant the destruction or exclusion of another kind of habitat, and it was the purpose of this meeting to seek a common purpose in a spirit of helpful co-operation.

The Society’s Conservation Officer, Mrs. Dorothy Frazer, gave a brief history of the Society since its foundation in 1919, when members were mostly concerned with recording lists of species, involving in some cases the making of large collections, with very little thought for conservation. However regrettable this may now seem, the work they did was necessary and forms the basis of our knowledge of wildlife today. This is important, for proper conservation means first of all “being aware” of what there is to conserve, and only then can one take the right steps in “taking care” of it. She illustrated her remarks with coloured slides, showing some of the major threats to wildlife, such as disposal of rubbish, careless use of chemical pesticides and oil pollution, with some of the measures which had been taken in the past to deal with them. Conservation was largely an attitude of mind, and she stressed the importance of education and seeking to encourage others to become “conservation-minded”.

Mr. Cecil Pearse, the Secretary and Agent to the Local Management Committee of the National Trust, spoke of the special problems of conservation faced by the National Trust in the management of its properties on the Island. There was frequently a conflict of views on the correct measures to be taken, as for instance the control of scrub invading chalk grassland on the downs, but with the benefit of expert advice they sought to maintain a proper balance. He, too, stressed the importance of involving the rising generation in the work of conservation and commended the excellent work being done by Mr. and Mrs. Frank Heap with members of the Newport and West Wight Youth Centres.

Dr. Allan Insole, County Museums Officer and leader of the Society's Geological Section, gave an illustrated talk on "Why Geological Conservation?" which is reproduced elsewhere in these *Proceedings*.

Dr. Jack Jones, Curator of Carisbrooke Castle Museum, also stressed the threat to archaeological sites from natural erosion of the coast, but even inland sites were subject to erosion by various means, such as quarrying, ploughing, forestry and development. He stressed the importance of representation at Public Enquiries, which had resulted in the conservation of many important sites, although, regrettably, some important ones had been lost. In these cases, as in the sphere of Industrial Archaeology, it was important to record the treasures of the past before it was too late by means of photographic records, some of which he used to illustrate his talk.

The Warden of Newtown Local Nature Reserve, Mr. Pat Ewbank, gave a short history of the part played by the Society with the co-operation of the National Trust and other land-owners in persuading the I.W. County Council to declare the reserve in 1966 as a major act of conservation. He described some of the work being carried out with the aid of schools and groups of voluntary workers to improve the habitat for wildlife and also to meet the needs of visitors.

Mr. Colin Beard, the regional Conservation Officer for the Hampshire and Isle of Wight Naturalists' Trust, Ltd., spoke of the excellent conservation work which had been carried out by the Royal Society for the Protection of Birds, in much of which he had been involved. He also referred to the work of the World Wildlife Fund, which had been most valuable, but, as a teacher involved with young people, he stressed the importance of involving them with active participation in conservation, as he had done during the last nine months.

Mr. Stuart Traves of the I.W. Joint Planning and Technical Unit spoke on the work of the British Trust for Conservation Volunteers, involving both the National and Local Conservation Corps, with which he had been involved during the last two years.

Mr. John Stafford, past-president, spoke of his work as the Society's representative on the Countryside Advisory Panel to the County Council, the World Wildlife Fund and surveys carried out by the British Trust for Ornithology, in which many members had participated and which provided much useful information as a basis for future conservation work.

Light refreshments were provided by Mrs. B. Hodgson and Mrs. L. Prangnell. In his summing-up, the President stressed the importance of involving the young, so that they may become the good naturalists of the future. He regretted that time was not available for proper discussion of the many other issues raised, but hoped that arrangements could be made to re-convene the meeting at a later date. (See next page).

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#### **General Meeting on 25th November, 1978.**

Mr. R. A. Snow gave an illustrated lecture on "An Introduction to Pollen Analysis", which forms the subject of a short paper elsewhere in these *Proceedings*. In thanking the speaker, the President said that he hoped that the example shown by Mr. Snow, in not being afraid to come to grips with an undoubtedly difficult subject, would be followed by other members.

### **General Meeting on 2nd December, 1978.**

The general meeting on "What do you mean by Conservation?" held on 18th November, 1978, was re-convened to allow for further discussion. On this occasion, by special request, Mr. L. Foss, the Isle of Wight Chairman of the National Farmers Union, attended and was invited to put forward the views of farmers.

The President opened the meeting by summarising the main points referred to by previous speakers, stressing the importance of three aspects of conservation, to which all speakers had made reference, i.e. the need for recording, co-operation of all concerned and the involvement of young people in active conservation work. He then called on Mr. Foss to address the meeting.

Thanking the Society for this opportunity to participate in this debate, Mr. Foss had to say that to many farmers "conservation" was a dirty word. There were good reasons for this, for no farmer takes kindly to restrictions imposed on him, from whatever quarter, which will interfere with his making full use of his very high capital equipment and the need to increase food production. Having said that, however, it was important to realise that the countryside as it is today, which the Society wished to conserve, was largely man-made and, in fact, had been created by the farmers themselves, and, losing land at the rate of some 20,000 hectares a year for other uses, none were more aware or concerned about the pressure on land which exists today. His organisation had done a lot to impress the importance of conservation on its members and welcomed the co-operation of the Society, to which he paid tribute for the scientific and reasonable attitude which it had adopted in the past, and hoped that such co-operation would continue in the future.

Replying to questions, Mr. Foss stated that, while agreeing with the importance of way-marking footpaths, this was really the task of the County Council. Unfortunately so many users of the countryside, and even residents in new estates in the country, were totally ignorant of country ways and caused considerable inconvenience. With regard to the filling in of ponds, although regrettably farmers had been required to do this in the 1940's. in recent years many new ponds had been created, and this was likely to continue.

Members then discussed the Society's own attitude towards conservation, and in a prepared statement Mr. Ron Snow pleaded for more action and less talk, which, in the event, led to considerably more discussion, and finally it was left to the Conservation Committee to work out ways in which the ideas expressed can be put into action.

The President thanked Mr. Foss and their speakers for attending.

### **General Meeting on 8th December, 1978.**

Members of the Society, together with participating students, their parents and friends met at Cowes High School to receive the report of the twentieth Annual Newtown Survey, held earlier in the year, from 27th May to 11th June, inclusive. The report was illustrated with coloured slides and 8mm film, and there was a full and comprehensive display of the work undertaken. A report of the work carried out appears later in these *Proceedings*. The display was mounted again at the Teachers' Centre, Newport, during the latter half of January, 1979, for the benefit of those attending the Annual General Meeting and other interested members of the public.

**General Meeting** on 9th January, 1979.

For the first general meeting of the new year, members were given an illustrated talk on "A Visit to the Orkneys" by Dr. Allan Insole.

Introducing the speaker, the President recalled some of his own experiences of the Orkneys, where he was stationed for some two years. Apart from the abundance of bird life, his most vivid recollections were of "horizontal" rain and snow, driven by the lashing winds.

Dr. Insole began his talk by showing a map of the many islands which comprise the Orkneys, separated from the north of Scotland by the Pentland Firth, which was probably the most treacherous stretch of water in the world. The largest island, Pomona was always referred to as the "mainland", and here were the two main towns, Kirkwall and Stromness. The total population of less than 20,000 was mostly concentrated in these two towns, and many of the smaller islands were uninhabited. The average annual rainfall of 37 ins. was comparable with our own, and the months of April to June were the best for paying a visit. Although snow lay on the ground for an average of 14 days a year, the mean winter temperature was surprisingly high at 40°F, owing to the effects of the Gulf Stream, while average summer temperature was very cool, due to the prevailing winds, and warm clothing was always required. Statistics show that only one month in the year is free of frosts. Owing to its northerly latitude the sun rises at 2.10 a.m. on the 22nd June, giving a full 18 hours of daylight.

The whole area is fascinating in the fields of geology, natural history and archaeology. Although there are some metamorphic rocks up the west coast, most of the underlying rocks are sedimentary, dating from the Devonian period. Chief amongst these is the hard sandstone, which separates into horizontal slabs, giving it its name of "flagstones", containing many fossil fish, and forming the characteristic cliffs with many ledges and crevices for nesting birds. The constant battering of the seas causes erosion of these cliffs into fantastic shapes, archways and stacks, such as the famous "Old Man of Hoy", striking views of which were shown. The weathering of the rocks has created a very fertile soil and farming is highly mechanised. With the almost complete lack of trees and hedges, however, the passerine birds familiar to us are almost absent, but this is amply made up for by the numbers of other birds, such as the Guillemots, Gulls, Puffins, Great and Arctic Skuas, Fulmars, Harriers, Oystercatchers and Short-eared Owls, which abound. Striking photographs of many of these were shown.

Of the small number of mammals found, some, such as the rabbit, rat and house mouse, have been introduced, but others are rather special, such as the Orkney Vole. Both Grey and Common Seals haul out on the rocky ledges, and Otters are common, being much appreciated by the islanders and not persecuted in any way. The Blue Mountain Hare is native, and turns white in winter. Apart from the common toad, there are no other reptiles or amphibians in the Orkneys.

Archaeological remains abound, dating mostly from the Neolithic period, about 3000 B.C. The most striking of these are the burial mounds, with central chambers constructed of stone slabs, in wonderful states of preservation. There are also large stone circles and an ancient village, which had been inundated by blown sand, now revealed in an almost perfect state. There are also many ancient ruins of Pictish towers, churches and fine houses from the historical period, most graphically recalling the many changes of fortune which have occurred in the Orkneys from the arrival of the followers of St. Columba in the 7th century to the Celtic settlements, subject to Viking

raids, to its finally becoming part of Scotland in 1590, as a pledge for the unpaid dowry of Margaret of Denmark, wife of James III.

Even comparatively modern buildings still retain many of the features of the past, and the narrow winding streets in the towns have been designed to avoid the funnelling of the constant wind and so ensure more protection. Scapa flow, between the mainland and Hoy, has been famous for the part it has played in naval actions in two world wars, but the recent finding of uranium-bearing rocks near Stromness could constitute a major threat to the environment, if open-cast mining were to be undertaken.

The President thanked the speaker for a most interesting account of his visit, which had so vividly recalled so many of his own memories.

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### **General Meeting on 2nd February, 1979.**

Members heard a most interesting lecture on "Aerial Photography as an aid to Archaeology", with special reference to the Isle of Wight, by Mr. David Tomalin, Assistant Curator of Carisbrooke Castle Museum.

In the absence of the President, Mr. O. H. Frazer introduced the speaker, who began by referring to the polished pebbles used by early man as a "pebble note-book", on which to practise his drawings. By special techniques it was possible to deduce that the same pebbles were used again and again, since there were always traces of the former drawings just discernible to the expert. In the same way, the surface of the earth, particularly in southern England, still bore the marks of man's activities through the ages superimposed upon each other, and it was by aerial photography that many of these marks became visible and meaningful to the archaeologist.

The potential value of aerial photography as a tool for the archaeologist was first realised when reconnaissance aircraft were first used in the Great War, and subsequently the RAF have carried out a number of aerial surveys of the country, one of which, carried out in 1946, at 6 inch to the mile was on display. Although of great value for mapping purposes, it was necessary to be much more selective for meeting the needs of archaeologists, and timing was of the utmost importance.

The lecturer then illustrated his remarks with a striking series of coloured slides of aerial photographs, mostly taken in the Island, showing the main kinds of marks most useful to the archaeologist. These were plough marks, when small particles of subterranean material are brought to the surface by ploughing, shadow marks, when slight undulations in the ground, not discernible at ground level, are brought into relief by shadows cast when the sun is low, and crop marks, when differential water-retaining properties of the sub-soil show as distinct colours in a growing crop, although one always has to guard against the possibility of some other causes, such as fairy rings, caused by certain species of fungi. The period of drought in 1976 had been particularly useful in providing exceptional crop marks, which otherwise might never have been seen.

Although the aerial photograph, showing these marks, was a valuable document in itself, it was even more important to follow it up by active field work on the ground, before all traces are lost. He showed a number of slides illustrating the work carried out at sites, such as Redcliff, near Sandown, and Apse Valley which had first come to their notice by means of photography.

After answering a number of questions, the lecturer was thanked by Mr. Frazer,

who stated that this was a good example of bringing together the two main interests of members, natural history and archaeology, to serve a common purpose. Refreshments were kindly provided by Mrs. L. Prangnell and Mrs. D. Frazer.

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#### **Annual General Meeting on 10th February, 1979.**

For the first time since the Society's inauguration in 1919, the Annual General Meeting had to be postponed from its originally planned date of 27th January owing to the inclement weather. In addition, owing to the threat of industrial action, it was necessary to change the venue for the meeting to St. John's Church Hall, Newport, which, in the event, met with the full approval of members.

The President referred with regret to the loss by death of several valued members in the course of the year – Mr. R. G. Archer, Mrs. E. E. Booth, Mr. L. A. Cooke, a recent council member, the Rev. S. F. Dorling-Townsend, who had done much valuable work with the Young Ornithologists, Dr. G. C. Dunning, a Vice-President and world authority on Medieval Pottery, for whom an obituary notice appears elsewhere in these *Proceedings*, Mrs. J. J. Footer and Mr. H. Knowler, the well-known designer of flying boats. Members stood in silent tribute.

In his opening address, the President reported that membership stood at 515, an increase of two on last year. One member, Mr. W. Griffin of Ryde, had reached the age of 100 years. He went on to recall the varied programme which had been enjoyed, and said that he was particularly impressed by the resurrection of the Archaeological Section, for which praise was due to Miss Middleton, Dr. Jones and Mr. D. Tomalin. The lack of an Entomology Section was regrettable, but it was hoped to stimulate interest in the subject during the coming year. Matters of conservation had taken up much time and, it was hoped, a better understanding between those concerned would lead to more practical work being done, as had already been demonstrated.

The President continued that perhaps the greatest success last year was the publication of the *Flora of the Isle of Wight*, the result of many years of devoted work by the Society's botanists, including the late Mr. J. H. Bevis. He presented copy No. 1 of the limited hardback edition, suitably inscribed, to Mrs. L. Bevis in appreciation of her husband's contribution as botanist and co-author of this work.

He continued that Local Look was again most successful as shown by Mrs. K. Wadham's report, which appears elsewhere in these *Proceedings*.

With regard to the future, the President suggested that by the year 2009 the Society should endeavour to publish papers covering all subjects dealt with in Morey's *Guide to the Natural History of the Isle of Wight*, published in 1909, a formidable and expensive task, but not beyond the capabilities of members. Finally, he expressed his thanks to the secretariat, Miss H. Blount, Mrs. L. Snow, Mrs. J. Greaves and the Programme Secretary, Mrs. L. Prangnell.

Reports from the Secretary, Treasurer and other officers of the Society, which had previously been circulated, were discussed and accepted. The Statement of Accounts, shown elsewhere in these *Proceedings*, showed a healthy balance, and copies of the *Proceedings* for 1976/7 were available for distribution to members. Reports were also received from the Records, Representatives on other Societies and those who undertake to act as liaison members of other bodies.

Consideration was then given to the alteration of certain rules, following recommendations made by the Inland Revenue and Charity Commission, and these were passed with only one dissident. (See pp. 138-141 in these *Proceedings*).

After Mr. O. H. Frazer had proposed a vote of thanks to those members of Council who were retiring after three years, all the officers at present serving were re-elected for the coming year, with the exception of the Treasurer, Mr. R. D. Hodgson, who was retiring after serving for seven years, in appreciation of which he was presented with a gift-token. Mr. D. Hunnybun, of Cowes, was unanimously elected in his place. The Honorary Members were re-elected with the addition of Miss G. Bullock and Mr. E. Coles. The Vice-Presidents were re-elected with the addition of Miss H. Blount, in recognition of her hard work for the Society as former General Secretary and present Membership Secretary. Other officers and Council Members were elected as shown elsewhere in these *Proceedings*. The appointments of Representatives and Liaison Officers with other Societies recommended by Council were duly ratified and approved.

Mr. L. Batty reported on the setting up of a R.S.P.B. Members Group at the request of local members after the film show at Shanklin. Activities will include fund raising, bird walks, film shows, etc. Mr. P. Ewbank will liaise with Society, and records will be sent to Mr. J. Stafford. Mrs. D. Frazer proposed that, following on last year's successful Local Look, members might like to form a Meteorological Section. Mr. R. K. Pilsbury, a retired Met. Officer, said that local records should be collected at a central point for future use. He offered to visit any member who collected records, to inspect their equipment and help to bring it up to international standards. He also agreed to collate records.

After tea, kindly prepared by Mrs. K. Wadham and helpers, during which members were able to study the displays, including details of current Bird surveys and the stages in the production of the *Proceedings*, members re-assembled for a showing of coloured slides and some 8mm film, depicting the year's activities, with commentary by Mr. O. H. Frazer.

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## SECTION REPORTS

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### Access to the Countryside

Walks were arranged as follows:

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|---------------|--|
| 29th January  | From the Viewpoint car park above Blackgang Chine to re-walk the Blackgang Nature Trail. |
| 26th February | From Borthwood Copse to walk through Borthwood and re-walk the Eastern Yar Nature Trail. |
| 26th March    | Walk through Firestone Copse.  |
| 23rd April    | Walk through Parkhurst Forest.   |
| 28th May      | From Rookley Post Office for walk in Rookley area.                                       |
| 25th June     | From St. Helens Green for walk in the St. Helens area.                                   |
| 2nd July      | From Mottistone Down car park for walk on downs and in forest.                           |
| 15th October  | From public car park in Godshill for walk in the Godshill area.                          |

MRS. C. RICHARDSON

## Archaeology

The Archaeological Section has had a busy and successful year. Lectures by Mr. L. Fennelly and Mr. D. Tomalin and an instructional evening at Carisbrooke were enjoyed, and in April a special visit to Carisbrooke Castle was kindly arranged by the Curator, Dr. J. Jones.

A number of members had their first experience of a "dig", when they worked on the medieval site in Pyle Street, Newport, and also on a clay pipe kiln near Church Litten. A letter was received from the I.W. Archaeological Committee expressing thanks and admiration for their work under very difficult conditions.

Later in the summer members worked on the multi-period site at Redcliff, Sandown, and also on the excavations on Newbarn Down.

In June a delightful and extremely interesting visit to Shalfleet Village was made possible by the kindness of the Shalfleet Women's Institute and the vicar of Shalfleet, the Rev. F. W. Crooks.

In September a visit to Niton Village was led by the Section Leader. Four members have undertaken the checking and indexing of field names.

MISS M. MIDDLETON

## Botany

The most important "happening" this year has undoubtedly been the publication of the *Flora of the Isle of Wight*. We are indeed fortunate and privileged to have two two of the authors, Mr. B. Shepard and Mr. R. Kettell, actively helping us with the Botany Section of the Society, so there is really no excuse for ignorance on botanical matters.

Meetings were arranged as follows:

- |           |  |
|-----------|--|
| 2nd April | Our first meeting was led by Mr. B. Shepard, and we walked the Parkhurst Forest Trail to survey the flora. We planned to continue this recording on the first Sunday of each month. We had a well attended first meeting and looked at the spring flora, which was rather late due to the cold weather. We kept up the survey through May, June and July, but thereafter we have been too busy and let it lapse, so that is something to be completed next year.   |
| 14th May  | Mrs. C. Pelham took us on a walk to Widcombe, Bierley and Head Down. This proved to be a fascinating route through a lane, which was wet and very muddy, but full of plants. Bluebells were nearly over, but primroses, anemones, ferns and mosses were in abundance. There were a lot of fine trees and on the hill above Widcombe we found Lousewort, <i>Pedicularis sylvatica</i> . On returning to Niton over Head Down we found the Dwarf Elder, <i>Sambucus ebulus</i> , which is thought to have Roman associations, as it has styptic properties. A few weeks later we found this plant growing all down the lane to Widcombe. |
| 10th June | A walk hopefully to see orchids, from Knighton round Ashe, resulted in our finding a group of Pyramidal and Bee Orchids on disturbed ground above the waterworks, but we saw no others during the walk. There was a good area of old coppice at Eaglehead copse with some Twayblades. Two or three weeks later the Bee Orchids on Ashe Down were quite numerous, so we were again too early for them with the cold spring. We returned by the sand-  |

- pits and one notable sight was of an Oak tree of immense size, the girth being 19 ft. 4 ins.
- 24th June This walk followed a general meeting on Culver Down and was poorly attended. Dr. A. Insole came and helped us to find a number of plants he had previously noted. The Yarrow Broomrape, *Orobanche purpurea*, was in its full glory. We found a number of chalk-loving plants and, on the cliff edge, was Portland Spurge, *Euphorbia portlandica*, which has in the past been at the cliff bottom.
- 16th July Mr. E. Burn took us on a scramble over the cliffs at Totland, where movements of the cliff surface – a “land glacier” – continue every year. We found the Marsh Helleborine, the Southern Marsh-orchid and quite a number of the Fragrant Orchid, *Gymnadenia conopsea*, var. *densiflora*. Chicory was growing all over the cliffs near to the beach, and we noted many of the sea-side plants – Sea-purslane, Sea-spurrey, Sea-kale, Tall Melilot and Rock Samphire. The weather was at its best and the setting, together with the delight of seeing so many plants, made a marvellous meeting.
- 23rd July Mr. B. Shepard led a walk from Newchurch to Alverstone. As it was a dull, damp day, we had a small meeting. We went on a path behind the church, over the fields to the wet valley bottom of the River Yar, and walked along the old railway track, so we recorded a large and varied list of plants, including the Copse-bindweed well established in an old hedge in woodland.
- 10th September We visited Newtown Harbour, where Mr. P. Ewbank took us through the marsh to the quay. He provided us with the plant lists and outlines he uses for his school groups and gave a great deal of help for beginners (and old-timers) to learn to identify the flora of the salt-marsh. Unfortunately the weather was rough, so we dare not make the crossing to the west bank to see the plants of the shingle, but instead we walked through the Nature Reserve to Clamerkin and returned by the woods. It was a well-attended meeting.
- 7th October The Misses Coward took us through Appley Park, Ryde. We had a beautiful day and the setting was superb. As an introduction Miss Coward showed us old prints of the House and Park, and explained the history of the area. We were rewarded with some magnificent trees and a good and interesting ground flora. Some of the trees that have grown in the Park have reached great heights. It made an excellent finale to our year’s work.

MISS K. PAGE

**Geology**

Meetings were arranged as follows:

- 24th February “Structures in Isle of Wight rocks and their interpretation”, by Dr. A. N. Insole.
- 11th March Prospect Quarry, Freshwater.
- 15th April Whale Chine.
- 27th May North-eastern end of Headon Hill.

17th June	Compton Bay.
15th July	Cowleaze Chine.
26th August	St. Helens.
30th September	Wheeler's Bay, Ventnor.
14th October	Gurnard.
11th November	Wootton Creek.
5th December	"Volcanoes – Ancient and modern", by Dr. A. N. Insole.

A. N. INSOLE

### Mammals, Reptiles and Amphibians

The first meetings of this Section took the form of illustrated lectures at the I.W. Teachers' Centre, Newport. At the first, on 10th February, members heard a lecture by Dr. Allan Insole on "Latest Thoughts on the Evolution of Man", which gave members an excellent opportunity to hear the latest theories concerning our antecedents. The second, on 20th March, was on "The Ecology of Mammals", with special reference to those found in the Island, by the leader of the Section. This was requested and designed to help members in their personal recording of mammals, which, with similar recordings of reptiles and amphibians, provide the necessary information to compile meaningful distribution maps of these animals in the future. Mention should be made here of the excellent observation of Foxes made by Mrs. Audrey Wilkinson in February, which is so outstanding that it is given in full under Natural History Notes at the end of these *Proceedings*. It is hoped that other members will be encouraged to submit such observations of outstanding interest in the future.

The other meetings of the section involved the use of the Society's Longworth inspection boxes in furtherance of the Small Mammal Survey, and consisted of field meetings in various areas. The first of these meetings, on 1st April, was held at the Crusaders Union Youth Centre, Westbrook House, Ryde, by kind permission of the warden, Mr. Sturton. Previous arrangements for this meeting had been made by Miss Coward. The inspection boxes were set out well beforehand, and on the first round at 8 a.m. several members of the section were joined by some 40 children, who were staying at the Centre, and their leader, Miss Tidmarsh. This made it quite the best attended section meeting ever held, and it was fortunate that the results were very good, with many Wood Mice, Bank Voles and Short-tailed Voles, and a total of 31 captures (34.4%) through the day. This included the catching of four young Wood Mice all together in one box, which is a most unusual occurrence. In May the section played an important part in the "Red Squirrel Weekend", which is reported under General Meetings, and the Longworth Inspection Boxes were again put to good use at the Newtown Survey Camp. The next field meeting was held at the Medina Valley Field Centre, by kind permission of Mr. L. Batty, where results were rather poor, yielding only 6 captures (5%), comprising four Woodmice and two Pygmy Shrews on the edge of the saltmarsh which was interesting.

The last field meeting, held at the Newtown Rifle Ranges, at the invitation of the T.A.V.R., and with the full co-operation of the resident Warden, Mr. T. Rolf, was also most disappointing in its results. Although the area, consisting of overgrown coppice, mature oak woodland, open grassland with islands of scrub, seemed to be ideal for a wide range of small mammals, the captures consisted of only one Common Shrew and two Short-tailed Voles in the course of the whole day (2.5%). It is interesting to speculate on the possible consequences of such a dearth of small mammals, if wide-

spread, on the predators, such as owls, that depend on them for food. A fine Grass-snake was observed in a clearing in the wood, however, and there were welcome signs of Hedgehogs, Stoat, Dormouse, Rabbits and Hares, while a Fox was also observed jumping on its shadow.

Other matters of interest relating to this section will be read under Natural History Notes at the end of these *Proceedings*.

O. H. FRAZER

### Microscopy

Meetings were held as follows:

- 14th March At this indoor meeting, Mr. F. E. Neat, who joined the Society at its foundation in 1919 and has been doing microscopic and photographic work since that time, brought a selection of his microscope slides and photographs, particularly on pond life and seashore subjects, for members to see and discuss.
- 4th July Microscopes were set up at the entrance to Borthwood Copse, and members searched the copse for suitable specimens to examine under the microscope.
- 23rd September Members met at Ein Shemer, Upper Hyde Farm Road, Shanklin, by kind invitation of Mr. and Mrs. R. Snow, who demonstrated techniques used in preparation of recent and fossil spores and pollen for examination under the microscope. Light refreshments were very kindly provided.

In addition the Society's microscopes were made available at Local Look during August and at the Fungus Foray and Exhibition in October.

D. ROBERTS

### Ornithology

Meetings were held as follows:

- 1st January Five members walked along the shore from Bembridge to Foreland. Purple Sandpipers, Sanderling, Bar-tailed Godwits and a Pintail were amongst the twenty three species seen.
- 4th February Four members ventured from Rowborough Farm to Brighstone Forest in low cloud and intermittent rain. Few birds were seen.
- 5th March A well-attended meeting on the Medina near the Folly Inn. 431 Black-tailed Godwits and 25 Turnstones were noteworthy.
- 23rd April The meeting planned for Luccombe Down was diverted to Littleton Down because of an unexpected motor cycle rally. Once again few birds were seen.
- 30th April A walk from Sandown Water Works towards Newchurch along the old railway track produced a good number of incoming migrants including Chiffchaff, Willow Warbler, Garden Warbler, Blackcap, Whitethroat, 4 Cuckoos, Swallow, House Martin, Sand Martin, Montague Harrier and Sedge Warbler. A Cettis Warbler was heard and a Snipe seen drumming.
- 13th May A visit to Alum Bay, Headon Warren and West High Down. Fulmars, Kittiwakes, Razorbills, Guillemots and an immature Iceland Gull were seen.

- 9th June An evening walk in Firestone Copse where Nightjars and Woodcock were seen and heard.
- 1st July From Yarmouth to Freshwater along the Yar, returning by the west bank. 42 species seen.
- 17th September Mr. and Mrs. Goodley led a walk from Yarmouth to Thorley. Redstart and Wheatear were seen.
- 22nd October A second visit to Alum Bay and Headon Warren. Redwings, Fieldfares and one Ring Ouzel were amongst the many species seen.
- 11th November Bembridge Harbour and Ponds. Disappointing, apart from 7 Shoveler.
- 1st December An indoor meeting at the N.F.U. Boardroom, Newport, with sound recordings of bird songs by Jim Cheverton and the result of the Mute Swan Census by John Stafford.
- 26th December Foreland in gale force winds and intermittent rain. Fortunately shelter and excellent viewing was provided from a beach chalet owned by two members. 14 Purple Sandpipers, Dunlin, Sanderling, Bar-tailed Godwits, and rafts of Shoveler, Mallard and Wigeon were seen.

Members of the section took part in Wild Fowl Counts for the Wild Fowl Trust, Estuary Counts and the Nest Records Scheme for the B.T.O., and Beached Bird Counts for the R.S.P.B. in addition to providing data for the Mute Swan Survey.

J. M. CHEVERTON

### Seashore

The following meetings were arranged:

- 18th January An indoor meeting of general interest to see slides and photographs of the past year's work, as well as to make plans for future outings.
- 11th February An indoor meeting to examine samples of plankton brought by members under the microscope.
- 15th April An indoor meeting to hear a talk and demonstration by Mr. F. Neat entitled "On the Seashore with a Microscope".
- 17th May A visit to the saltmarsh at Newtown for the study of seashore life in the estuary.
- 22nd June From Hanover car park for an exploratory walk along the beach with Mr. L. Batty.
- 12th July Meeting at the Local Look store to prepare the exhibits for Local Look.
- 24th July A visit to the Foreland, Bembridge, to study and record seashore life with Mr. L. Batty.
- 2nd September From Binstead church, a walk to Quarr Estuary to collect mud samples for sieving and identification of specimens.
- 30th September Indoor meeting for seaweed pressing at the home of Mrs. J. Greaves at Fishbourne.
- 23rd November Talk on animals of the seashore, with particular reference to crustaceans, by Mr. Lovely, at Bembridge School.
- 6th December Making shell collections at the home of Mrs. J. Greaves.

MRS. I. GASKIN

# CONSERVATION REPORT FOR 1978

By Dorothy Frazer

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Last year I hoped for a better coverage of conservation matters, which would be reported in the Bulletin. However, the only item that was reported was the change in policy of the Hampshire & Isle of Wight Naturalists' Trust, relating to the reconstitution of their Area Boards, which in turn affected this Society. My objective was in the end realised, but not perhaps in the way I had anticipated. There has been a considerable increase in practical conservation by working parties of the Hampshire & Isle of Wight Naturalists' Trust, the National Trust, the Conservation Corps and the Girls' Venture Corps, all of which involved young people. Members of our own Conservation Committee have also carried out practical work, as well as keeping a watch on special sites. I have received the usual spate of telephone enquiries and have taken appropriate action. It is cheering to realise that public concern is being expressed and is being noticed, and on a number of occasions I have found that the matter in question had already received attention from a County or Borough Council member. Environmental safeguards are increasingly being written in to planning agreements, but it is important to follow these up and ensure that they are being observed. As Conservation Officer, I represent the Society on the Management Committee and the Steering Sub-Committee of the Newtown Local Nature Reserve, the Executive Committee of the Council for the Protection of Rural England (I.W. Branch) and the Advisory Committee to the South Wight Borough Council on the Freshwater Marshes. In addition, Mr. J. Stafford represents the Society on the Countryside Advisory Panel of the County Council. As in many cases other members of the Society also serve on these committees, although in another capacity, the interests of natural history and archaeology are being well served.

During this year the newly formed Island Conservation Area Advisory Committee, on which the Society is represented, has had several meetings and working parties have been set up to study the various conservation areas, which, although usually in urban or village areas rather than in the countryside, do include features of special interest in natural history and archaeology. These Conservation Areas are being designated by the County Council under the Civic Amenities Act, 1967. The Nature Conservancy Council has produced the revised schedule of Sites of Special Scientific Interest (S.S.S.I.) for the Isle of Wight. The following sites have been added: Bonchurch Landslip, Medina Estuary, Rew Down, St. Helens Ledges and the Western Yar Estuary. One site, Chillerton Down, has been deleted, and there are boundary revisions to nine other sites. The liaison between this Society, the I.W. County Council, Education Department, the Joint Planning and Technical Unit, the Borough Councils, the Forestry Commission, the National Farmers Union and the other bodies already mentioned has been maintained in the interests of conservation. The year ended with two general meetings devoted to the subject of conservation, and these are fully reported elsewhere in these *Proceedings*. Although the programme note invited members to send in written comments beforehand, if they wished to speak, only the President and one other member did so before the first meeting.

In conclusion I would like to thank all those who have helped me with advice and practical help, and those who have kindly represented the Society when their expert knowledge was required, or when I was unable to attend a meeting myself.

# LOCAL LOOK REPORT FOR 1978

By Mrs. K. Wadham

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Our 18th "Local Look" Exhibition, with its theme "Climate and Weather", was very beautiful and again very successful. At last we were able to study, criticise and praise, verbally and pictorially, the Englishman's favourite topic of conversation, in all its features and effects.

Mr. R. K. Pilsbury, F.R.P.S., allowed us to use some of his wonderful photographs of clouds, storms and snow, and, through his good offices, we were able to borrow the display arranged by the British Meteorological Office, as seen by H.M. the Queen on a visit to Bracknell just prior to the Local Look Exhibition. From this display we learned about weather observations and forecasting and how the Met. Office helps the general public.

The theme of "Climate and Weather" was then continued in the displays arranged by the different sections of the Society.

Our present temperate climate has succeeded sub-tropical and glacial ages; periods of heavy rainfall and low rainfall; periods of lakes, swamps and marshes, which then dried out. Such information can be determined by the study of rock formations and the evidence of fossils, which were displayed in the Geological section.

Plants adapt to the weather they experience, and growth varies according to conditions, but all aspects of weather play their part – sun is necessary for healthy growth, wind for pollen and seed distribution and rain for life.

Mosses and lichens are also good weather indicators, while our mammals and reptiles are also affected by weather, which causes changes in habits and in some cases hibernation.

Insects are affected by cloud, wind and rain, the last two particularly causing difficulties to flying insects, so this will in turn affect birds and migration. The Island being on the route of the summer migrants, we are able to welcome them near St. Catherine's Point from March onwards and watch their departure at Alum Bay and the Needles in September.

On the beach plants and animals face dangers of drying out from the heat of the sun or strong winds, while all aspects of our weather combine to cause the cliff falls and land erosion to which we are subject on our beautiful Island.

Our sections and their leaders are to be congratulated on the thought and care they have shown to produce this interesting exhibition, which has given pleasure to so many visitors, this year numbering 7,400. The money taken at the sales table was more than last year, but so were the expenses, so I imagine our final total will be much the same. The new Collecta Cards proved very popular, though expensive, and I have many hundreds of cards in stock for future years.

My grateful thanks are due to many who helped at "Local Look" – to the few who helped with "setting up" and "taking down"; to the Schools Meals Service for transport of equipment before and after the exhibition; to members and friends who provided sales goods to raise funds; to Mr. Victor Wadham, who so generously stores our ever increasing amount of equipment, and last of all I thank those who gave their time to steward the exhibition – a very small, but loyal, band of helpers – and I hope that more members will offer their services in future years.

## GEOLOGICAL CONSERVATION

By A. N. Insole

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### Why Geological Conservation?

Rocks are generally thought of as an inexhaustible and indestructible resource, although anyone who observes the Island's coastline will realise that at least the latter is untrue. In the last decade it has become increasingly obvious to many geologists in Britain that our unique geological heritage was being threatened in a variety of ways. However, before discussing these threats and the counter-measures which can be taken, it is perhaps pertinent to ask why geological sites require preservation.

Essentially there are four reasons why geological sites require protection:

1. Britain was the country in which much of the early pioneering work in modern geology was undertaken. In part this was due to socio-economic factors operating in the late eighteenth and early nineteenth centuries, but it was also in large measure due to the rich diversity of the geology in this country. As a result of this early work many geological sites are of historical importance and as such should be protected.
2. Many of the rock units used in this country to divide up the rock sequence originated in the last century. Unfortunately not all the rock units were precisely defined and this has caused considerable problems. Currently the rock sequences in the British Isles are being critically re-examined. As a result the rock terminology is being re-organised and redefined in accordance with internationally established principles of rock unit nomenclature. One of the basic rules of the system is that every rock unit should have designated type locality, or in a few cases a type area. The type locality should show all the typical characteristics of the rock unit and at least one and preferably both contacts (i.e. the Upper and Lower boundaries) so that the limits of the unit can be unambiguously defined. The function of a type locality is to provide a standard with which other exposures of the same rock unit can be compared. This system is analogous to that used by biologists in identifying species where a type specimen located in a museum is used as the standard against which other presumed specimens of the species can be compared before final identification.

For example the type locality for the newly defined Vectis Formation (formerly Wealden Shales) is the cliff section between Cowleaze Chine and Atherfield Point where both upper and lower contacts are visible. It is important that all type sections are preserved, since without a standard the nomenclature becomes unstable, and this would seriously hamper geological research. A prime example of such a situation is afforded by one locally defined rock unit, the Osborne Beds. The type locality for this unit is the coast near Osborne House. Unfortunately the Osborne Beds were not clearly defined when first proposed in 1856 and, since the exposures are no longer available for study, no improvement in the position can be made today. As a result, the Osborne Beds have come to be variously regarded by different research workers.

3. Many British geological sites are of great importance from a palaeontological standpoint, either because they have produced type specimens in the past or because they have provided rare or unusual material.

For example Prospect Quarry is one of the few sites in the Bembridge Limestone, which yield relatively abundant fossil land snails, otherwise relatively rare. Such sites should be preserved for their potential for future research.

As knowledge and techniques improve it may prove possible to gain fresh information

from an old site.

4. The final category of site which should be protected are those that exhibit unique or unusual geological features, e.g. Alum Bay cliffs with their multicoloured sands. Again future research may yield new data in such cases.

### **The Threats on Geological Sites**

Over a period of time any rock face will become covered with erosional debris and/or vegetation. This is generally only a serious problem in the case of what might be called "static" sites such as disused quarries, stream sections and road cuttings although it can also effect some coastal sites, as for example Headon Hill. In general the solution in such cases is relatively simple and involves the clearance from the site of the accumulated debris and vegetation. Occasionally, however, this can lead to conflict between the opposing interests of geological and biological conservation.

A more serious threat is posed by industrial and urban development. Inland geological sites and even some coastal sites are potential areas for infilling and reclamation for housing or industrial use. In general this threat can be countered by the Nature Conservancy Council through the use of its statutory powers. However, occasionally despite the vigilance of the Nature Conservancy Council and of geologists sites are lost.

The third threat posed paradoxically comes from geologists themselves. In the last decade there has been an enormous expansion of geology students at schools and universities, of amateur geologists, and of "fringe" interest bodies such as gemmological and lapidary societies. As a result many sites are threatened with destruction through sheer pressure of usage. The problem has become more acute because such usage is often concentrated to a few well-documented sites. A recent estimate by the Nature Conservancy Council suggests that there are at least 100,000 useful geological sites in Britain, and yet only 1.5% of these, mainly the Sites of Special Scientific Interest (S.S.S.I.), are used.

Often there are at least two or three equivalent sites near to an overused site which could be used.

The reason for this concentration of use is twofold. Firstly teachers of geology at all levels habitually return to those famous sites which they themselves visited as students, so that large parties repeatedly return to the same site. Secondly, the publication of standard itineraries for important areas, whether the technical and academic publication intended for the student and researchers or the commercial books aimed at the amateur fossil, rock and mineral collector, tend to be restricted to the "classic sites".

As a result of this concentrated use the sites lose those features which made them exceptional in the first place.

The problem has become so serious in the Welsh Borderland that the use of geological hammers at some sites is banned. As a result of the recognition of the problem of overuse the Nature Conservancy Council and the Geological Curators Group have instituted a National Scheme for Geological Site Documentation. The aim of this project is to record all the geological sites in the United Kingdom in terms of location, access restrictions, geological features, educational value, condition, etc. The ultimate aim is to identify sites which are good alternatives to the classic sites and to publicise them in any way which may be appropriate. The Museum of I.W. Geology has been involved in the scheme since its inception and is now the official record centre for the Isle of Wight. Unfortunately, unlike the Biological Recording Scheme operated by the Nature Conservancy Council, there is no geological equivalent of the Biological

Records Centre. Nor is there the type of central government organisation which co-ordinates site conservation and recording in archaeology. This reflects the fact that, in spite of the importance of geology economically to the country, and the scope and scale of geological teaching and research, there is a very small amount of money available.

While the National Scheme for Geological Site Documentation should eventually alleviate the problems of site overuse, the one area of geological conservation it will not help is overcollecting, whereby vast numbers of specimens may be removed for an amateur's collection, the manufacture of jewellery or for commercial sale. This is now a major threat to palaeontological and mineralogical sites. The activities of British amateur collectors has generally been on a small scale, although the effect can be cumulative. Much more serious has been the appearance of a new breed of collectors, who subject sites to large scale exploitation for commercial gain. At present it appears that such activities have been due to foreign commercial dealers, but no doubt the idea will spread. An example of the type of site destruction that can occur is provided by the activities of German parties in 1976 and 1977 at a Silurian fish locality in the Southern Uplands of Scotland. Using power tools they took the cliff face back by several feet and excavated two small pits some five feet square. In doing this they removed an unknown quantity of valuable scientific material, not for research purposes, but purely for monetary gain. Reports from the continent suggest that this is not an isolated incident, but that it is a widespread occurrence. It is important to realise that activities of this kind are not criminal offences. The only control rests with the site owner who could take civil action to prosecute people who remove material from his land. This, of course, very rarely happens. Most British professional geologists now abide by the Geologists' Association Code of Conduct which, amongst others, makes the following points: that collecting should be kept to a minimum; that *in situ* fossils, rocks or minerals should not be removed unless they are genuinely needed for serious study; and that collecting of actual specimens should be restricted to those localities where there is a plentiful supply, or to scree, fallen blocks and waste tips. This code does not however go far enough. For example it should perhaps include provisions whereby geologists, whether amateur or professional agreed to restrict the amount of personal collecting carried out at vulnerable sites and to ensure that any specimens collected are reported to an appropriate museum so that their existence and location can be recorded. As far as foreign commercial collectors are concerned, it has been suggested that the Government should invoke the 1970 UNESCO Convention prohibiting the illicit export of cultural property.

In spite of the codes of conduct, etc. it seems likely that the only long term means of protection for the most vulnerable localities might well prove to be their acquisition as geological reserves so that the sites can be actively managed. While acquisition could be by the Nature Conservancy Council, more appropriately it should be by the local County Naturalists' Trusts. Shropshire and Derbyshire Naturalists' Trusts have already entered this field. In many ways the island is more fortunate than other counties as far as geological conservation is concerned, since many of the sites are coastal and therefore the problems of vegetation and debris coverage as well as overcollecting are relatively small. Also much of the Island's coastal areas are in the hands of the National Trust and therefore urban or industrial development is not a serious overall problem. There is however no reason to be complacent especially with the advent of the commercial collector.

## FOSSIL INSECTS FROM THE LOWER HAMSTEAD BEDS (LOWER OLIGOCENE) OF THE ISLE OF WIGHT

By E. A. Jarzembowski

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The Hamstead Beds are a predominantly argillaceous formation, 78m thick, preserved only in the northerly part of the Isle of Wight. They consist mainly of fresh and brackish water sediments, but in the upper part is preserved the last Palaeogene marine transgression in the British area. Although the precise position of the Eocene-Oligocene boundary in the Hampshire Basin is still debatable, recent workers are agreed that the Hamstead Beds are of Oligocene age (Cavelier, 1968; Curry, Gulinck & Pomerol, 1969; Cooper, 1976; Denizot, 1968; Ford, 1974; Keen, 1972; Machin, 1971; Martini, 1972; Rey, 1967). Some workers place the Lower-Middle Oligocene boundary as low as the base of the Upper Hamstead Beds (although only the underlying Lower Hamstead Beds concern us here); Rey (1967) would assign the whole of the formation to the Middle Oligocene.

During a recent TRG visit to the Island, the Hamstead Beds were studied on the foreshore at Bouldnor for about one kilometre to the east of grid reference (SZ) 377904. At the suggestion of Mr. R. L. E. Ford, certain ironstone concretions on the beach were split and the surfaces examined in detail by the author for insect remains.\* Mr. Ford has previously observed the occasional beetle elytron in clay sievings whilst searching for mammals (personal communication). Webster also recorded some coleopterous remains in a well excavation near Newport in 1814 and it has been suggested recently that these were from the Hamstead Beds (Venables & Taylor, 1963). This paper is the first detailed account of insects from this formation.

The ironstone concretions are fine grained, sideritic and rusty brown in colour; internally they are pale grey when fresh. Drifted plant remains occur, sometimes concentrated along bedding planes. The blocks bearing the insects include monocotyledonous leaves (possibly reeds), and on one, the leaves of *Dicotylophyllum pinnatifidum* Reid and Chandler 1926 (?Myricaceae). The seeds of *Typha* are present and a fruit of *Potamogeton*. Ostracods are common belonging to the genera *Ilyocypris* and *Moenocypris*; they are sometimes aligned and several sizes may be seen. In addition there are the occasional scales of a fish. The insect remains are sparse and comparatively small. The whole assemblage suggests a freshwater environment of deposition. The stratigraphical position of the concretions was not observed, but ironstones are well developed in the Hamstead Beds in the vicinity of the White Band, some 20m. above the base of the formation (Bristow, Reid & Strahan, 1889).

Fossil insect remains are often small and rarely abundant. Initial examination of freshly split rock surfaces is best done in a good, oblique light with the aid of a hand lens (sunny afternoons are ideal for collecting!). Alternatively, the surfaces can be examined indoors under a low-power microscope, and this is preferable for bedding planes rich in small organic detritus. Fossil insects are often preserved in good relief and detailed study is facilitated by altering the angle and direction of lighting. Wet surfaces heighten the contrast of chitinous objects, but porous, salt-impregnated rocks should not be wetted with water, as this will encourage efflorescence. Further

\*Specimens in the Department of Entomology, B.M.N.H. (In. 64566-9).

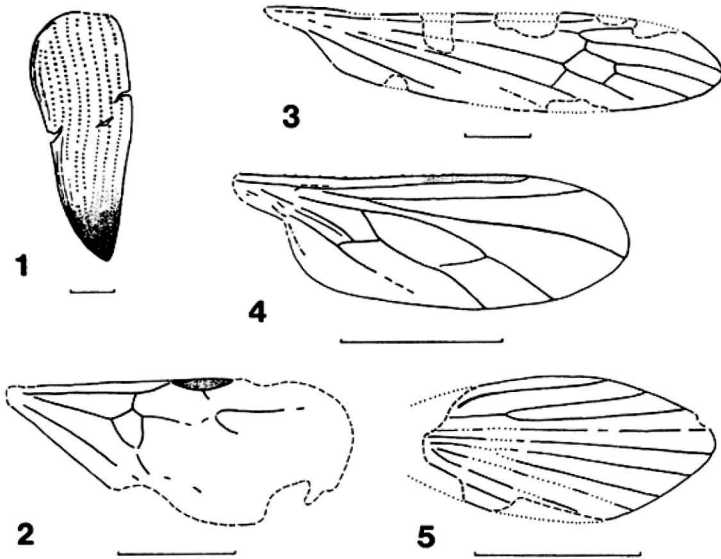
preparation can be done with a strong needle or an engraving (vibro) tool under fine control, but a knowledge of insect morphology is desirable.

## ORDER COLEOPTERA

Superfamily Curculionoidea Latreille, 1802 (Fig. 1).

The convex form (—even allowing for a median indentation), ten striae and general habitus agree well with modern weevil elytra (forewing covers). The Curculionoidea is a successful group of phytophagous beetles at the present day with over 60,000 known species; it is well represented in the Lower Eocene (London Clay) of southern England (Britton, 1960).

The affinities of a second, incomplete elytron are obscure.



The figures (1 excepted) are composite drawings based on part and counterpart, involving examination of the specimens in both wet and dry states. Dashed-and-dotted lines represent wing folds; other lines conventional. (Scale line=1 mm.)

## ORDER HYMENOPTERA

Family Formicidae Mayr, 1855 (Fig. 2).

A single forewing, and although damaged, is referable to *Leucotaphus permancus* Cockerell, 1927 from the Insect Bed (Bembridge Marls). In modern ants, wings are developed only in the reproductive caste. The alates only emerge from a nest for their brief mass-mating flight, which is the sole occasion that they are likely to contribute to the fossil record.

## ORDER DIPTERA

Family Tipulidae Leach, 1815 (Fig. 3).

The single forewing is readily referred to this family on account of the two long

anal veins and a discal cell. It represents a species new to the British Tertiaries where it most resembles the limoniine *Limonia (Dicranomyia) exhumata* (Cockerell, 1922) from the Insect Bed (Bembridge Marls). Estimated wing span 15 mm.

The crane-flies are a cosmopolitan family at the present day with over 11,000 described species. The adults usually occur in damp, shady places and are liquid feeders; larvae are aquatic or occur in wet soil or decomposing plant matter.

The same piece of stone bears what may be the wing of a small parasitic wasp.

Family Psychodidae Newman, 1834 (Fig. 5).

A single incomplete forewing with only the outer part preserved, on the same piece of stone as the ant wing. The broadly ovate form, Rs and M 4-branched and the small size place it in the Psychodidae (moth-flies or owl-midges). Estimated wing span 5 mm. It is possibly conspecific with *Psychoda primaeva* Cockerell, 1915 from the Insect Bed (Bembridge Marls).

Present day moth-flies like crane-flies are found in moist, shaded places where they feed on organic juices; the larvae occur in decaying matter or water.

Family Empididae Latreille, 1804 (Fig. 4).

The forewing of a small species with an estimated wing span of 5 mm. A short cell Cu, cell M separate from 1st M<sub>2</sub> and reduced calypteres are characteristic of empids. The presence of a discal cell, cell CuP distinct, a rounded anal lobe, R<sub>4+5</sub> unbranched and M 2-branched agree with the subfamily Hybotinae. (Colless & McAlpine, 1970). The venation approaches that of extant British species of *Ocydromia* and *Leptopeza*.

Recent empids are a cosmopolitan family with about 3,000 described species. The adults are carnivorous insects, feeding on smaller arthropods – frequently other Diptera. The larvae are terrestrial or aquatic and the adults are often found in moist places.

Cockerell (1917) described a new genus and species of dipteran from the Insect Bed (Bembridge Marls), *Mesomyites concinnus*, which he referred to the Empididae on account of its affinities to recent *Mythicomylia*. The latter is now considered to be a bombylid (Brues, Melander & Carpenter, 1954) and the specimen from the Hamstead Beds appears to be the only record of this family in the British Tertiaries.

## Conclusion

The information that we have on the insect fauna of Britain in the late Palaeogene is derived almost exclusively from one fossiliferous bed in the Bembridge Marls. Apart from the Hamstead Beds, insect remains have been occasionally found in ironstone in the Osborne Beds at Cliff End (Bristow, Reid & Strahan, 1889) and in the Bembridge Marls near Whitecliff Bay Point and along the coast between West Cowes and the Newtown River (Jarzembowski, in press). The Upper Eocene and Lower Oligocene strata of the Isle of Wight include a number of concretionary ironstone horizons and further collecting will undoubtedly provide stratigraphical information on the British younger Palaeogene Insecta.

## Acknowledgements

The author would like to thank Mr. R. L. E. Ford for taking him to Bouldnor Cliff, and Dr. M. E. Collinson (BMNH) and Mr. P. R. Crane (Reading University)

for help with plant determinations. The Diptera and Coleoptera identifications were confirmed by Mr. K. Smith and Mr. R. Thompson respectively, Dept. of Entomology (BMNH).

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## NEWTOWN SURVEY REPORT 1978

By **L. E. L. Cox**

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I am pleased to present the report of our Annual Survey at Newtown, held this year from May 27th to June 11th. For the statistically minded this is the twentieth report.

Arrangements for this year's survey ran into difficulties at the outset. We had planned to start on May 20th, hopefully, to find more nesting birds. The very wet spring however prevented this. Preparatory visits to the site revealed that the whole area was extensively poached by cattle, mud was actually flowing down the paths and we were working ankle-deep in it. The camping sites were areas of spongy morass and unfit for use. Fortunately there was an improvement in the weather so that we were able to set up camp in dry conditions and were eventually blessed by the two finest weeks of the Spring period.

The two weeks catered basically for two separate parties. The first week consisted of students mainly from the IVth and Vth forms; many who had previous experience of the work at Newtown. The knowledge that they had previously gained proved of value and enabled studies to get under way quickly and efficiently. Their expertise enabled the basic routine of camp duty and organisation to run smoothly.

The second week had a larger proportion of younger pupils, attending for their first time. There were some minor teething troubles concerning domestic arrangements, which were fortunately soon overcome, some very early breakfasts, and extensive work-loads enabling students to realise the value of working to schedules and sleeping at the appropriate times. The second group finally proved to be a very effective one, producing work of a good standard and forming a pleasant, united community.

The main survey items were as follows:

### 1. **Mammal trapping**

This is a continuing study and interesting results are emerging concerning distribution and cover and annual population numbers. This year catches were lower than the previous year. The change is immediately noticeable when comparing the results obtained in the last two seasons.

The work this year was continued by Tracey Hart and Lita Langridge. The new recruits who became absorbed in the mammal study were Margaret Scott and Ian Robertson. Margaret has made a significant contribution to the display with Tracey.

### 2. **Flower studies**

These were continued by Catherine Aylward. She had previously mapped the distribution of orchids. This year's check revealed no evident changes and is available in the display. Catherine undertook an examination of the pollination mechanisms in orchids after reading Darwin's account and has a section in the display illustrating the apparatus.

Work on buttercups revealed a tremendous range in numbers of petals in the inflorescence. Students' note-books reveal continuing interest in the variation of flowers in their differing habitats. Much of the study this year was concerned in identification and the use of keys.

### 3. Meadow Ant Survey

This was in the capable hands of Mr. Oliver Frazer, without whom no Newtown camp is complete, we are always indebted to him for his expertise and enthusiasm in all aspects of the work and not least for his spine-chilling firelight ghost stories.

The cut-away model and set of slides amply illustrates the lines of enquiry being followed in this activity. Guy Cooper and Jonathan Cox were able allies in this work.

### 4. Coast Erosion

The datum line was checked again this year and revealed some changes.

The various factors contributing to the loss of material from the cliff is outlined in the work presented by Jonathan Cox; his section showing the annual loss of material is self-evident and the whole work well supported by a set of good illustrative slides.

### 5. Sea Shore Studies

Junior members of the survey party spent considerable time learning to identify the many forms of life on a shore, the work-sheets of "Whats in a Habitat?" forming a good base to start from, numbers of which are on show in the display. The shore line was investigated by making a series of transects.

This year's visiting VIth Form were actively concerned in sea shore investigations. Oscar Michalski's transect illustrated the changing vegetation from cliff top to shore line, supported by a collection of seaweeds by Jane Harris. Transects of the cliff were carried out by Michael Pennock, Michael le Masurier and Russell Hampshire.

### 6. Fossils

The work on the fossil beds was more restricted this year as we experienced neap tides and were not able to get as far out as we would have liked. Nevertheless there were some interesting finds. A section of antler, of which we have very few finds, and a new discovery of a tooth of a hippopotamus. The work was again ably conducted by Andrew Mills and Guy Cooper.

Dr. A. Insole informs me that the bison, elephant, hippo and deer are all contemporaneous and that there are other comparable sites in the Solent, the nearest of which is situated at Hill Head.

It seems that this survey may at last be attracting wider interest and support as I understand plans are afoot to involve a sub-aqua club in dives and that pollen analysis is to be completed in order to obtain details of vegetation that is associated with fossils.

As this year may be the last one that Andrew and Guy may be able to attend for some time, I must take the opportunity of thanking them for the continued help and support they have given since leaving school in the organisation of the camp. In particular I must note Andrews' meticulous recording of his finds on the reef. He is the most well informed and experienced in this work, of all those concerned with fossil-finding at Newtown.

### 7. Birds

Nesting birds were in very short supply at Newtown this year. Nests were found of Lapwing, which was presumably, stepped on by cattle and the eggs smashed, a Herring Gull, of which we have some good photographs and records and a Redshank.

The Herring Gull provided the centre of interest for the bird watchers. It nested on the breached sea wall in company with sitting birds. A good photographic record was obtained illustrating nest, eggs, hatched chicks and adult birds incubating. Pupils were able to put into action all they had learned of photography using still and cine camera from the hide and fixed cameras in the camera hides. Mr. Frazer makes particular comment about using correct apertures, stating that for some negatives he had to give two minutes exposure to enlarge some prints, whilst others were over-printed within a matter of seconds, We must try to rectify this next year.

Gareth Hayles with Ashley Small and Jonathan Cox were principally involved in the work with the birds, Gareth making extensive efforts to produce an accurate bird count for the season which is on display.

Hides were set up on Herring Gull and Redshank and general observation hides sited in the meadow and on the saltings. Pupils were able to make good observations from the hides and for the rookies, work with identification sheets enabled them to appreciate the change of species with changing habitats.

A hide was constructed in the bushes overlooking one of the ponds available to us. We have obtained good film of birds visiting the pond to drink and have to thank Chris Stroud for his labours in hollowing out the brambles and setting up the hides.

Owen Parker and David Fishburn were principally involved in recording bird song which is available this evening. An interesting development of this activity is that Mr. Potts, the Schools Music Adviser, plans to use recordings in the Middle Schools.

Owen Parker is to be congratulated on his article in the School Magazine and on his excellent paintings on display.

## 8. Moths, Butterflies

As in all the activities, these studies were pursued at two levels. Newcomers learning to identify species, life cycles and habitats, whilst more experienced pupils continued with the work of previous years, Tim Wrigley's display of species distribution of butterflies and food plants being a good example of the records that are being assembled each year. The completed work sheets from "What's in a Habitat?" illustrated the initial work in this study.

Nick Palaeologous again conducted his moth-trapping and the varying populations and species recorded over the last three years suggests investigations that need to be followed up concerning the availability of food and the effect of climate on the hatching and development of the moths.

Nick was ably supported in his work by Nick Cox, who looks as if he could be a successor in future years.

## 9. Pond Surveys

These proved popular this year and work initiated the previous season was developed. The pond was accurately surveyed and the distribution of plants and animals investigated. There is still much to be done, but the foundation has been laid with junior students that should ensure a detailed picture of the pond is built up in succeeding years. Future investigations should enable comparisons of ponds to be made.

In particular, oxygen analysis has been started, using a modified Winkler method. This year it did not prove too successful, but it is hoped that difficulties can be ironed out next season to produce some accurate results.

The survey work presented this year is that of Chris Stroud and David Elford, both third year students. They have been able to build on work initiated last year by William Johnston, Ashley Small and Robin & David Grant.

#### 10. Conservation

In addition to the studies in Natural History considerable work was completed in maintaining and conserving the area. Many of the dead elms were felled and cleared and the wooden landing stage that was damaged and washed away was repaired and put into service again. Some of the scrub that is creeping over the meadow was also cleared.

The camp also serves a useful function in policing the area during the influx period of visitors over the Whitsun holiday. Although there were few nests to protect this year, visitors were met and conducted round the site to show how it was used and of the valuable educational assets of the area.

We are pleased to believe that a good relationship is built up with the public in this way.

Amongst our visitors this year were Mr. Jim Cheverton, this year's President of the Society and his guests. They were able to check and confirm our bird records. In addition Mr. Cheverton was able to maintain his dragonfly records.

Mrs. Gaskin was able to spend a week under canvas and benefited from her week in the open air. I was pleased to note the way pupils were concerned to help her in her forays to the beach, despite the restrictions imposed on her by illness.

I am also indebted to Miss Deborah Hinson who stepped in to supplement Staff supervision during the second week of the programme. I am sure she gained some insights into teaching that I trust will prove of value to her in her Education Course.

The camp had its lighter moments including an unexpected late night "swim" for a member of staff and a boat that didn't quite float despite concerted efforts to repair it. Sadly our evening football was marred by an accident to David Grant but I am happy to see him back to full fitness again. An extensive programme of sailing was undertaken too.

Finally, I would like to thank all those students who have worked so hard to prepare the displays – in particular Robin Grant, Geoffrey Murray and Ashley Small for editing and preparing the film.

## BIRD REPORT FOR 1978

By J. Stafford

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The year's observations resulted in a list of 196 species – a total which has only twice been exceeded.

No new species were added to the Island's list this year, but Whiskered Tern had been recorded only once before. Other rare occurrences were Yellow-browed Warbler (for the third time), Cory's Shearwater (fourth), Iceland Gull (fifth), Cetti's Warbler (sixth), Marsh Warbler (sixth), Honey Buzzard (seventh) and Little Ringed Plover (seventh).

The weather had its most dramatic effect on the last day of the year, when snow fell over much of the country. Movements and unusual occurrences noted on that day at several points of the Island involved Brent Goose, Wigeon, Pintail, Lapwing, Green Sandpiper, Little Gull, Woodlark, Skylark and Redwing; details are to be found in the Systematic List. Incidentally, some of the interesting observations that day were made from Ryde Pier; have our other piers any potential value as winter observation posts?

As always, the report depends heavily on those observers who take the trouble to submit their records. They are all to be thanked for their co-operation.

### The Listing Sequence

The *Report for 1971* outlined the background to the publication by the British Ornithologists' Union of a species list<sup>1</sup> in the sequence used by Peters<sup>2</sup>, superseding the Union's 1952 *Check-List*<sup>3</sup> which was in the familiar Wetmore<sup>4</sup> sequence. The 1971 Report Editors' Conference decided not to adopt the new sequence, and instead had an alternative list<sup>5</sup> prepared, with a minimal number of alterations from the 1952 *Check-List*.

An important factor in the decision by the Report Editors was their awareness that both the Wetmore and Peters sequences had serious defects, and that alternative sequences were being considered. An alternative sequence has now been published by Voous<sup>6</sup>, and is becoming generally accepted. The Voous sequence is being followed by the standard work, *The Birds of the Western Palearctic*<sup>7</sup>, by *British Birds* journal<sup>8</sup> (which has also published a list<sup>9</sup> of Western Palearctic species in the Voous sequence, for the benefit of those who do not have ready access to Voous's list), and by the British Trust for Ornithology; the British Ornithologists' Union is also expected to do so. The Report Editors' Committee of the British Trust for Ornithology has recommended that local bird reports should use the same sequence, and accordingly the Systematic List below is in the Voous sequence, as future Reports will be.

The English vernacular names are also being reviewed by a national working group<sup>8</sup>. Pending the outcome, we are using the species names in the *British Birds* list<sup>9</sup>. As that list does not include separate names for those few subspecies which are separable in the field, we are continuing to use the subspecific names in the B.O.U.<sup>3</sup> and B.T.O.<sup>5</sup> lists. (Examples in the present *Report* are Water Pipit and Blue-headed Wagtail).

The species numbers formerly used, which the B.T.O. list<sup>5</sup> adopted from the 1952 *Check-List*<sup>3</sup>, are retained in this *Report*, as they have not entirely lost their relevance,

and the subsequent lists have not included numbers. Although the species are no longer arranged in strict numerical sequence, they are sufficiently so for the numbers to assist in a quick search for particular species. The numbers also serve, in cases of doubt, to identify species by reference to the systematic name in the *Check-List*<sup>3</sup>; the vernacular names are too unstable, and lack sufficient authority, to be suitable for that purpose. Moves are in progress to produce a new set of species numbers for use in reports such as this.

A glance through the species numbers in the Systematic List will reveal that most species are not far displaced from a strict numerical sequence, indicating movements of species within genera, or genera within families. Otherwise the major changes involve certain Passerine families – particularly pipits, wagtails, tits, crows and sparrows.

Changes in the sequence are undoubtedly irritating, but the decision in 1971 not to adopt the Peters sequence avoided an interim change, and ensured stability for some 25 years. It is hoped that the new sequence will last well into the next century.

1. "The Status of Birds in Britain and Ireland". British Ornithologists' Union. 1971.
2. J. L. Peters. "Check-List of Birds of the World". 1931-70.
3. "Check-List of the Birds of Great Britain and Ireland". British Ornithologists' Union. 1952.
4. A. Wetmore. "A systematic classification for the birds of the world". 1930.
5. R. Hudson. "A Species List of British and Irish Birds". British Trust for Ornithology. Guide No. 13. 1971.
6. K. H. Voous. "List of recent Holarctic bird species". *Ibis* 115 (1973): 612-638; 119 (1977): 223-250, 376-406.
7. S. Cramp *et al* (editors). "Handbook of the Birds of Europe, the Middle East and North Africa: the Birds of the Western Palearctic". Volume 1, 1977.
8. *British Birds* 71 (1978): 1-3. Editorial.
9. "The *British Birds* List of Birds of the Western Palearctic". 1978.

#### Abbreviations, etc.

The sequence and vernacular names follow *The British Birds List of Birds of the Western Palearctic* (1978). Names of subspecies, where appropriate, and numbers of species are taken from the British Trust for Ornithology's *Species List of British and Irish Birds* (1971).

♂: male. ♀: female.

S.C.P.: St. Catherine's Point.

Other initials in the Systematic List denote the observers concerned in certain categories of record (see *Report for 1969*).

#### Observers and Contributors

H. J. Angell, R. Attrill, P. J. Barden, L. Batty, Dr. D. T. Biggs, D. J. Brazier, J. M. Cheverton, Miss C. Cooper, N. Davis, D. B. Dixon, P. J. Ewbank, Mrs. M. Fagg, P. A. Gandy, Rev. H. M. Hill, Mrs. V. Hopkins, Mrs. F. E. Hudson, D. J. Hunnybun, Miss M. M. Linington, S. Linington, Rev. D. M. Low, R. T. Lowein, Miss C. Mackenzie, P. McAndrew, Mrs. S. McAndrew, C. Morton, Mrs. S. M. Newell, Miss D. Redfern, H. G. Rickard, Mrs. M. M. Seabroke, Mrs. L. Snow, R. A. Snow, J. Stafford, W. H. Truckle, Mrs. A. Wilkinson, D. B. Wooldridge, Mrs. L. Yates.

## SYSTEMATIC LIST

- 4 **Red-throated Diver.** At S.C.P. all divers were scarcer than usual, despite good coverage by DBW. The table includes all records – all flying E.

	2nd	16th	April		23rd	29th	June 3rd	Oct. 30th	Total
			18th	22nd					
Red-throated			3			2			5
Black-throated			1		1			1	3
Great Northern						2			2
Unidentified (probably Red-throated)	1	5		1			1		8

- 1 **Black-throated Diver.** One in Osborne Bay on January 8th, and 2 there on 29th. One at Woodside on December 29th.

S.C.P.: see under Red-throated.

- 2 **Great Northern Diver.** One in Osborne Bay on January 8th and 29th, and at Quarr on February 3rd. One at Woodside on December 29th.

S.C.P.: see under Red-throated.

- 9 **Little Grebe.** Bred at Bembridge Pond, where 2 small young were seen on August 20th.

- 5 **Great Crested Grebe.**

- 6 **Red-necked Grebe.** In Osborne Bay, 4 on January 8th (JMC, ND) and 1 on November 26th (JMC).

- 7 **Slavonian Grebe.** In Osborne Bay, 4 on January 29th and 1 on February 26th. 1 at Newtown, December 17th-26th. 3 at Woodside and 1 on Medina, all on December 29th.

- 26 **Fulmar.** Up to 4 at Main Bench throughout the breeding season; one sat from early May to late June, but there was no sign of young.

Fewer than usual at S.C.P.:

April			
16th	17th	18th	23rd
8	10	17 to E	10

- 20 **Cory's Shearwater.** Two flew E past S.C.P. on September 19th (HMH). The fourth record for the Island.

- 16 **Manx Shearwater.** Recorded only at S.C.P.: 2 to E on April 24th; 17 to E on June 2nd; 1 to E on September 23rd.

- 14 **Storm Petrel.** One flew W past Seaview on April 14th (SMN).

- 27 **Gannet.** Fewer than usual at S.C.P.:
- | April  |         | Oct.   | Nov.   |
|--------|---------|--------|--------|
| 4th    | 18th    | 26th   | 7th    |
| 8 to E | 69 to E | 1 to W | 1 to E |

One fishing off Fort Victoria on September 2nd. Two dead on the beach at Brook on November 25th – one clean, the other not badly oiled (MML).

- 28 **Cormorant.** During a boat journey from Yarmouth to Main Bench on July 16th, 292 were counted – presumably all from the Main Bench colony (JMC, ND).

- 29 **Shag.** 17 at Main Bench on July 16th (JMC, ND). Not often recorded elsewhere, but one at Osborne on January 29th, and several singles at S.C.P. in spring.

- 30 **Grey Heron.** 6 nests at Bembridge (4 and 2, in two sites) (JMC).

- 84 **Mute Swan.** Numbers on Sandown Canoe Lake in autumn:

Sept.	Oct. 12th	Nov. 11th	19th	Dec. 1st	28th
2-3	33	40	40	24	2

- 82 **Canada Goose.** Main numbers at Newtown as usual: 98 on January 2nd, reducing to 65 on February 2nd; the autumn build-up started with 13 on July 22nd; 100 on November 5th.

5 on the sea at S.C.P. on April 17th left to W.

A pair on the Western Yar produced one young (VH); 2 pairs were also present at Newtown in the breeding season.

- 80 **Brent Goose.** Monthly maxima:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Newtown	560	600	450	—	—	—	—	—	—	2	245	650
Quarr	70	70	—	1	—	—	—	—	—	—	—	75

3 at Yarmouth on December 25th. Several small flocks flew W past Ryde Pier on December 31st, and 2 E the same day past S.C.P. — the only record outside the Solent.

- 73 **Shelduck.** 36 at Bembridge on March 12th, and 23 still there on May 14th.

Nested: Newtown; Bembridge, 2 pairs; Werrar, 2 pairs; Sudmoor, Brighstone, 1 pair; Quarr, 2 pairs, unsuccessful; Culver Cliff, suspected.

- 50 **Wigeon.** Monthly maxima at Newtown:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	230	240	140	—	—	—	—	—	2	35	45	390

C 140 flew W past Ryde Pier in 2 hours on December 31st (SL).

- 49 **Gadwall.** A ♂ in Brading Marsh on December 17th (JMC). A pair at Yarmouth on December 24th (PMcA, SMcA) and at Newtown on 26th (PJB, SL).

- 46 **Teal.** Monthly maxima at Newtown:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	630	150	17	—	—	—	—	132	189	263	400	497

Bembridge: 262 on March 12th; a ♂ stayed until June 24th; 288 on December 17th.

- 45 **Mallard.** 321 at Bembridge on October 15th. 196 at Quarr on December 18th.

- 52 **Pintail.** A ♂ at Bembridge on January 1st. Newtown: 80 on January 1st; 48 on October 5th, increasing to 120 on December 17th. 2 flew W past Ryde Pier on December 31st.

- 47 **Garganey.** A pair flew E past S.C.P. on April 23rd.

- 53 **Shoveler.** 31 at Bembridge on January 15th. 2 at Quarr on April 1st.

- 57 **Pochard.** Suspicions of nesting intent were aroused at Bembridge: a pair, April 30th to May 27th, joined by another ♂ from May 14th.

Monthly maxima at Bembridge:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	52	—	14	2	3	—	—	—	—	44	—	128

- 56 **Tufted Duck.** Nested at Bembridge: 4 pairs on May 14th, but only the 4 ♂♂ were to be seen by June 24th; a ♀ and 7 medium-sized young on R. Yar on July 2nd; a ♀ on the ponds on July 17th had 8 young, also medium-sized, and thought to be a different brood.

Monthly maxima at Bembridge:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	23	—	21	14	8	4	9	—	—	—	—	20

- 55 **Scaup.** A ♂ in Freshwater Bay on February 12th (JS), and a ♂ at Bembridge on 27th (SMN).

- 67 **Eider.** A ♂ off Headon Warren on June 10th (JS).

61 **Long-tailed Duck.** One flew E past S.C.P. on April 29th (DBW).

64 **Common Scoter.** Movements past S.C.P., all to E (DBW *et al*):

April							May
16th	17th	18th	23rd	24th	29th		22nd
5000	111	83	107	29	68		15

Also 56 flew W there on September 19th (HMH). There has only been one daily count exceeding that of April 16th – see *Report for 1966*.

Seldom seen in the Solent, but 2 at Quarr on April 11th (FEH).

62 **Velvet Scoter.** 2 off Seaview on March 28th (SMN). One flew E past S.C.P. on April 23rd (DBW).

60 **Goldeneye.** Recorded only at Newtown: 4 from January 1st, then 8 on 22nd and 11 on 31st.

69 **Red-breasted Merganser.** Newtown: 19 on February 5th, 27 on 23rd, 15 on December 9th. 13 in Osborne Bay on February 26th. 5 on April 16th, and 4 on 29th, flew E past S.C.P. 1 at Quarr on August 27th (FEH) – an unusual date. A ♀ on the Western Yar on December 24th.

70 **Goosander.** A ♂ off Seaview on March 10th and November 30th (SMN). One at Quarr on December 31st (FEH).

98 **Honey Buzzard.** One at S.C.P. on May 25th (WHT). The seventh record for the Island.

99 **Marsh Harrier.** A ♂ arrived at S.C.P. from SE on April 18th (DBW).

100 **Hen Harrier.** All records refer to single birds. ♀, Newtown, January 9th. ♂ to W past S.C.P., April 16th. August 1st, St. Helens, and 28th, Brading Marsh (SMN) – both early autumn dates, and probably the same bird. Seaview, October 29th. ♀ near Yarmouth, December 24th. Brading Marsh, December 28th.

102 **Montagu's Harrier.** A ♂ at Alverstone on April 30th (JMC, SMN).

93 **Sparrowhawk.**

91 **Buzzard.** Nested again in the Brighstone Forest area; two fully-fledged young by nest on July 10th.

Seen elsewhere outside the breeding season, singly unless stated otherwise: Newtown, January and August; Dodnor, March; Headon Warren, September (3); Brading Marsh, September and October (2).

See also under Peregrine.

103 **Osprey.** On May 6th, one arrived at S.C.P. from SE and continued NW along coast (RA).

One seen leaving Newtown to SE on November 3rd (HJA).

110 **Kestrel.**

107 **Merlin.** Widespread records of single birds, at Atherfield, S.C.P., Newtown, Gatcombe, Godshill, Mersley Down, Bembridge and Seaview, in January, March, October and November.

104 **Hobby.** Single birds seen at Seaview on July 4th, chasing House Martins, Shalcombe on July 19th, and S.C.P. on September 9th and October 13th.

105 **Peregrine.** One on Shalcombe Down on February 10th was disputing possession of a recently-killed pigeon with a Buzzard (PMcA, SMcA). One in Brading Marsh on September 17th was also attacking a Buzzard (JMC).

Other records, all of single birds: Brading Marsh, January 15th and April 25th; West High Down, April 2nd and 9th; ♀, Cridmore, April 8th; ♀, Culver Cliff, August 14th; S.C.P., September 11th.

- 116 **Grey Partridge.** 36 together at Kern on January 22nd.
- 118 **Pheasant.**
- 120 **Water Rail.** One at Alverstone on May 18th (JMC). Also reported outside the breeding season from Newtown and Yarmouth.
- 125 **Corncrake.** 2 in Brading Marsh on June 24th (JMC). 2 at Seaview on August 28th (SMN).
- 126 **Moorhen.**
- 127 **Coot.** A pair again nested at Quarr, but unsuccessfully.  
347 at Bembridge on February 12th.
- 131 **Oystercatcher.**
- 185 **Avocet.** One at Newtown on September 17th (SMN).
- 135 **Little Ringed Plover.** One at Quarr on August 17th (FEH). The seventh record for the Island.
- 134 **Ringed Plover.** 129 at Bembridge on February 12th.
- 140 **Golden Plover.** Monthly maxima at Newtown:
- | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|------|------|------|------|-----|------|------|------|-------|------|------|------|
| 466  | 348  | 220  | 30   | —   | —    | 9    | 64   | 82    | 240  | 380  | 410  |
- Compare this simple pattern of a winter visitor with the more complex pattern of Grey Plover.
- 139 **Grey Plover.** Monthly maxima at Newtown:
- | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|------|------|------|------|-----|------|------|------|-------|------|------|------|
| 44   | 43   | 62   | 37   | 4   | 15   | 18   | 56   | 61    | 57   | 44   | 18   |
- The figures indicate a few present in the summer, rather more in the winter, and still more in the two migration seasons.
- Also 6 at St. Helens on February 12th.
- 133 **Lapwing.** 677 at Bembridge on December 17th.  
During very cold weather on December 31st, several large flocks were seen from Ryde Pier, flying S (SL), and the same day 2,400 passed S.C.P. to SE (DBW).
- 169 **Knot.** Newtown: January 6th, 12; March 25th, 3; May 3rd, 8; June 30th, 1; September 29th-30th, 6.  
Quarr: a juvenile on September 3rd; 1 on December 31st.  
On April 29th 112 flew E past S.C.P. (DBW). Cf Bar-tailed Godwit and Whimbrel.
- 181 **Sanderling.** Almost all in the Bembridge-Seaview area, as usual; maximum 100 at Foreland on January 17th.  
Newtown: 1 on August 13th; 3 on December 31st.
- 171 **Little Stint.** Single birds at Quarr on August 3rd and Newtown on October 4th.
- 179 **Curlew Sandpiper.** Recorded only at Newtown: July 13th, 1; August 10th, 3; August 20th and 31st, 1; September 1st, 1; September 2nd, 3; September 29th, 1; October 25th, 1.
- 170 **Purple Sandpiper.** Recorded only at Foreland: largest counts were 18 on January 2nd and 14 on December 26th.
- 178 **Dunlin.**
- 184 **Ruff.** 14 at Foreland on January 20th.
- 146 **Jack Snipe.** Single birds at Bembridge on January 15th, November 12th and December 17th, and at Newtown on November 5th.
- 145 **Snipe.** Presumed to have nested again (see *Report for 1976 and 1977*) at Newchurch, where drumming flight in suitable habitat was often observed (JMC).

Largest counts at Newtown were 27 on February 17th and over 60 on March 3rd. 70 in Brading Marsh on March 12th.

148 **Woodcock.**

154 **Black-tailed Godwit.** 430 by R. Medina on March 5th (JMC) – the largest flock ever recorded there.

Monthly maxima at Newtown:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
98	165	211	151	26	4	40	103	122	81	110	73

155 **Bar-tailed Godwit.** Bembridge: January 15th, 6; February 12th, 1; March 12th, 5; December 17th, 5.

Quarr: May 18th, 3; September 2nd, 1.

Spring movements at S.C.P., all to E (cf Whimbrel and Knot):

	April		Total
22nd	24th	29th	
760	70	47	877

Monthly maxima at Newtown:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
—	—	4	2	1	2	4	—	2	2	2	2

151 **Whimbrel.** First on April 16th, at S.C.P. The spring movements there, all to E, were:

	April		Total
16th	23rd	29th	
1	38	20	59

Cf Knot and Bar-tailed Godwit.

Over one Headon Warren on May 7th.

150 **Curlew.** Newtown. 130 on August 23rd and December 30th. One on October 8th, with its bill trapped in a clam shell, was caught and released (JW).

162 **Spotted Redshank.** Newtown: January 1st, 2; 6th, 3; 14th, 4; 16th, 3; February 5th, 3; March 5th, 3; November 25th, 7; December 27th, 10.

Also single birds in Brading Marsh on January 15th, at Quarr on June 15th and July 12th, and at Yarmouth on September 24th.

161 **Redshank.**

165 **Greenshank.** Newtown: 5 on August 16th, 5 on September 3rd, 6 on 17th, 7 on November 5th.

156 **Green Sandpiper.** One at Blackwater on January 28th. One at Newtown on March 2nd, May 28th and August 16th. 1 or 2 at Quarr in April, May and August. One at Bembridge on September 9th and 17th. One at Yarmouth on September 23rd and 24th. One arrived at S.C.P. from SE on December 31st.

157 **Wood Sandpiper.** Single birds at Wootton on May 7th and Seaview on May 12th.

159 **Common Sandpiper.** A wintering bird at Wootton in January and December.

143 **Turnstone.**

195 **Pomarine Skua.** Only one record – see under Arctic Skua.

193 **Arctic Skua.** Movements of skuas past S.C.P., all to E:

	17th	18th	April	23rd	25th	May	July	Total
			22nd			21st	1st	
Pomarine			3					3
Arctic	3		2	2	4		1	12
Great		1	2			1		4

One chasing Lesser Black-backed Gull in eastern Solent on August 4th. One flew W past Fort Victoria on September 2nd.

- 194 **Great Skua.** See under Arctic Skua.
- 207 **Little Gull.** An immature flew E past S.C.P. on April 24th (DBW). One at Quarr on November 20th (FEH). One off Ryde Pier on December 31st (SL).
- 208 **Black-headed Gull.** As often happens, part of the colony in the Newtown saltings was flooded by a high tide on April 26th. The following day 1,100 were counted there. A further count on May 20th gave at least 2,070 adults, in three groups. The colony was flooded again on May 23rd and June 22nd. (PJE, MMS).
- 201 **Common Gull.** The largest flock was 135 at Bembridge on March 12th.
- 199 **Lesser Black-backed Gull.** A pair nested on Culver Cliff (JMC).
- 200 **Herring Gull.** Several pairs nested at Newtown.
- 203 **Iceland Gull.** An immature on the cliff top at Main Bench on May 13th (JMC). The fifth record for the Island.
- 198 **Great Black-backed Gull.**
- 211 **Kittiwake.** 80 flew E past S.C.P. on June 2nd.  
On July 16th the Main Bench colony held 75 nests, 130 adults and at least 30 young (JMC, ND, DJH).
- 223 **Sandwich Tern.** First on April 2nd and last on October 8th, both at S.C.P. One was feeding a juvenile at Quarr on September 21st (FEH).  
Movements of terns past S.C.P., all to E:
- |               | 17th | 18th | April<br>23rd | 24th | 29th | June<br>3rd | Total |
|---------------|------|------|---------------|------|------|-------------|-------|
| Sandwich      |      |      | 198           | 46   |      |             | 352*  |
| Common/Arctic | 6    | 34   | 24            | 90   | 144  | 5           | 303   |
| Little        |      |      |               | 1    | 8    |             | 9     |
| Black         |      |      |               | 1    | 3    |             | 4     |
- \*Including 108 others on various dates between April 2nd and 29th.
- 217 **Common Tern.**
- and
- 218 **Arctic Tern.** First on March 31st, at Yarmouth. Last on November 20th, at Quarr.  
The few observations which were able to distinguish between the two species included 2 Arctic in Brading Marsh on July 2nd (SMN) and 43 Common at Ryde Pierhead on September 8th (JMC).  
See also under Sandwich Tern.
- 222 **Little Tern.** First on April 23rd and last on September 19th, both at Newtown. Some were present there through the summer; maximum 11 on May 10th.  
See also under Sandwich Tern.
- 214 **Whiskered Tern.** An adult off Seaview on September 10th (DJB). See *British Birds* 72: 528. The second record for the Island.
- 212 **Black Tern.** 3 at Quarr on August 28th. 5 off Newtown on September 1st.  
Also recorded at S.C.P.: see under Sandwich Tern.
- 227 **Guillemot.** 180 flew from Main Bench when disturbed by a Peregrine on April 9th (JMC, ND, DJH, SL).
- 224 **Razorbill.** 23 at Main Bench, including 12 on sea, on April 9th. Adult and one young seen in crevice there on July 16th (DJH, ND).  
An immature was found oiled but alive at Newtown on November 3rd.
- 226 **Little Auk.** On December 15th one was beached at Brighstone, slightly oiled. After treatment by the RSPCA it was released at Puckpool.
- 230 **Puffin.** 2 on sea below Main Bench on April 9th (JMC, ND, DJH, SL) were the

only record of the year.

- 232 **Stock Dove.** 130 in Brading Marsh on November 12th.
- 234 **Woodpigeon.**  
— **Collared Dove.** One arrived at S.C.P. from SW on May 6th.
- 235 **Turtle Dove.** First on May 8th, at Newtown.
- 237 **Cuckoo.** First on April 15th, at Quarr.
- 241 **Barn Owl.**
- 246 **Little Owl.**
- 247 **Tawny Owl.** Heard at Osborne on April 6th, and frequently around Freshwater Bay in summer.
- 248 **Long-eared Owl.** Young heard in Parkhurst Forest on July 18th and 21st (PJB, DJH, SL).
- 249 **Short-eared Owl.** Only recorded singly. Newtown, February 13th. Arrived at S.C.P. from S on April 29th and from W on October 26th. Apse, November 12th. Ashy, November 16th. Brading, December 18th.
- 252 **Nightjar.**
- 255 **Swift.** First on April 23rd, at Quarr. Last on October 10th, at S.C.P.  
Movements included 50 arriving at S.C.P. on May 13th, 1,000 over Merstone on August 6th, and 320 flying S over Shanklin on August 9th.
- 258 **Kingfisher.**
- 261 **Hoopoe.** One on St. Boniface Down on April 2nd. One at S.C.P. on May 11th.
- 265 **Wryneck.** One at Quarr on October 6th (FEH).
- 262 **Green Woodpecker.**
- 263 **Great Spotted Woodpecker.**
- 264 **Lesser Spotted Woodpecker.** One in garden at Crossfield, Cowes, on July 13th (DJH).
- 271 **Woodlark.** 2 in Quarr farmyard on December 31st (FEH).
- 272 **Skylark.** In the cold weather on December 31st there was a strong westerly movement past Ryde Pier, and c 600 flew E past S.C.P. The same day there were 20 at Newtown which had not been noted previously.
- 277 **Sand Martin.** First on April 3rd, at Quarr.  
Only 2 pairs at the Sandown colony in the breeding season.
- 274 **Swallow.** First on March 27th, at Quarr. Last 8 at S.C.P. on November 9th.  
Various gatherings and movements were noted in September. Largest estimates were c 10,000 at Seaview on 16th and 23rd. Many at Newtown, especially on 11th, 13th and 16th, with smaller numbers on 15th, 21st and 24th; movement observed there on several days was all to W. Very large numbers at Freshwater Causeway, 17th-23rd. Moving S over Shanklin and Lake: 12th, 100; 19th, 100; 20th, 50; 21st, 50.
- 276 **House Martin.** First on April 16th, at Quarr. No last date reported, but substantial numbers still at Freshwater in third week of October.
- 376 **Tree Pipit.** The only one recorded flew E past S.C.P. on October 12th.
- 373 **Meadow Pipit.** At S.C.P. on April 3rd, 100 came in from sea and continued N.
- 379 **Rock Pipit.**
- 379 **Water Pipit.** One at Seaview on April 3rd (SMN).
- 382 **Yellow Wagtail.** Only 3 in spring: Quarr, April 10th and 21st; 1 flew E over Newtown Marsh on April 29th.  
One at Quarr again from August 28th to September 3rd. 2 at Newtown,

- September 9th. 8 at Alum Bay, September 18th. 2 flew S over Newtown on September 22nd, and 2 were there on 29th.
- 382 **Blue-headed Wagtail.** A ♂ at S.C.P. on April 22nd (DBW).
- 381 **Grey Wagtail.** Adults carrying food, and presumed to be nesting, at Newchurch on May 28th and at Knighton Water Works on June 4th (JMC).  
Single birds flew E past S.C.P. on October 12th and 19th; scarce there this year.
- 380 **Pied Wagtail.** A pair nested in the Newtown Harbour mooring boat (MMS).  
Flocks recorded included 40 on roof of Ryde Pierhead Station on February 23rd, 21 at St. Helens Duver on March 12th, 66 on the lawn at Osborne on July 19th, and 20 on Brown's Golf Course, Sandown, on November 16th.
- 383 **Waxwing.** 3 near Ryde on February 22nd (SMN).
- 299 **Wren.**
- 371 **Dunnock.**
- 325 **Robin.** Ringing recovery: a bird of the year ringed (KX 82355) on October 2nd at Withernsea on the Yorkshire coast was killed when it flew into a window at Brighstone on October 15th (MF).
- 322 **Nightingale.** First on April 29th, at Newtown.
- 321 **Black Redstart.** The only spring record was a ♀ at S.C.P., March 31st and April 1st.  
Rather more in autumn. 2 at St. Lawrence and 1 at Watcombe Bottom, October 12th. ♂ near Shalcombe, November 2nd. 2 at Blackgang, November 4th. ♂ and ♀, West High Down, November 5th. 1 at Whitwell, November 23rd.
- 320 **Redstart.** First 4 at S.C.P. on April 2nd.  
One at Newport on October 10th was killed by flying into an ambulance.  
Frequent on autumn passage from September 9th. A late ♂ at Brook on November 23rd.
- 318 **Whinchat.** First ♂ at S.C.P. on April 25th. Autumn passage from August 26th; last on October 13th, at Quarr.
- 317 **Stonechat.** Nested on West High Down.
- 311 **Wheatear.** First on March 12th, in Brading Marsh.  
The only one recorded in the summer was a ♂ at Brickfield, Newtown, on June 3rd, which gave the impression of holding territory (JMC, DJH).  
12 on Culver Down on September 2nd. An unusually late bird at Seaview Duver on December 2nd (SMN).
- 307 **Ring Ouzel.** None in spring. 1 near Freshwater Church, September 13th. ♂ in garden at Crossfield, Cowes, October 1st. ♂ at Alum Bay, October 22nd and November 5th. 2 at Newtown, October 24th.
- 308 **Blackbird.**
- 302 **Fieldfare.** The first of the autumn were 50 flying W past Newtown on October 20th. There was a continuous passage to W there all morning on November 21st.
- 303 **Song Thrush.**
- 304 **Redwing.** First autumn record at Dodnor on October 21st.  
C 200 arrived at S.C.P. from S on December 31st.
- 301 **Mistle Thrush.**
- 326 **Cetti's Warbler.** Single birds stayed from 1977 at two sites: near S.C.P. until at least April 23rd (DJH, DBW); in the Newchurch area on April 30th and May 28th (JMC, DJH, SL).

- 327 **Grasshopper Warbler.**
- 337 **Sedge Warbler.** First on April 25th, and last on September 17th, both in Brading Marsh.
- 334 **Marsh Warbler.** One in song at Bembridge Pond on May 27th (JMC). The sixth record for the Island.
- 333 **Reed Warbler.** First on May 14th, at Bembridge. Last on September 19th, at S.C.P.  
Occurs only infrequently at Newtown, but one was heard and seen clearly there on May 28th (MMS).
- 352 **Dartford Warbler.** Present again in the breeding season, in the same two localities as in 1977, but no direct evidence of nesting this year.
- 348 **Lesser Whitethroat.** First on April 30th, at Sandown Water Works. On May 21st 5 different birds were located in the area between Clamerkin and London Heath, near Newtown (JMC, DJH). Autumn passage noted at Newtown on August 27th and on Culver Down on September 2nd.
- 347 **Whitethroat.** First on April 25th, at Quarr.
- 346 **Garden Warbler.** First on April 16th, at Brading. Last on September 17th, at Bembridge.
- 343 **Blackcap.** Wintering birds at each end of the year, both at Shanklin: a ♂ on January 26th, and a ♀ on December 26th.
- 360 **Yellow-browed Warbler.** On the morning of May 13th, after NW winds, one was in a hedge opposite Shanklin cricket ground (JMC). The third record for the Island.
- 356 **Chiffchaff.** First on March 12th, at Bembridge. Last bird of the autumn on October 2nd, at Quarr, although it could have been the same one found wintering not far away at Woodside on December 29th.
- 354 **Willow Warbler.** First on April 6th, at Quarr. Last on October 18th, at Newtown.
- 364 **Goldcrest.** Over 100 arrived at S.C.P. on October 3rd.
- 365 **Firecrest.** Single birds at Rowborough on January 1st and February 12th, and at S.C.P. on October 8th.
- 366 **Spotted Flycatcher.** First on April 19th, at Quarr. 30 at S.C.P. on May 20th. Last 3 on September 23rd, at Newtown.  
A pair nested in an old cuckoo clock in the garden of Quarr Old Abbey (FEH).
- 368 **Pied Flycatcher.** The only ones recorded were 2 at S.C.P. on April 25th and 2 at Alum Bay on September 12th.
- 294 **Long-tailed Tit.** 27 at Newtown on October 18th.
- 292 **Marsh Tit.**
- 290 **Coal Tit.**
- 289 **Blue Tit.**
- 288 **Great Tit.**
- 298 **Treecreeper.**
- 278 **Golden Oriole.** A ♂ at Quarr on May 9th and 19th (FEH).
- 388 **Red-backed Shrike.** A ♀ or immature at S.C.P. on October 13th (AW).
- 286 **Jay.**
- 284 **Magpie.** 12 together near Appleford on September 3rd (LS, RAS).
- 283 **Jackdaw.** Apparently more than usual breeding in Newtown village, and raiding the gull colonies on the saltings (PJE).

- 282 **Rook.**  
 280 **Carrion Crow.**  
 279 **Raven.** Single birds at S.C.P. on March 31st (DBW) and Yaverland on May 29th (JMC).  
 389 **Starling.**  
 424 **House Sparrow.**  
 425 **Tree Sparrow.** One at Newtown on January 8th. 2 at Seaview Duver on April 21st.  
 407 **Chaffinch.**  
 408 **Brambling.** The only two birds recorded were both in April, suggesting a small passage – on Culver Down on 2nd, and with other finches on Head Down, Niton, on 11th and 12th.  
 400 **Serin.** A ♂ at S.C.P. on April 25th, and 1 arrived there from S on 29th (DBW). See *British Birds* 72: 541.  
 392 **Greenfinch.**  
 393 **Goldfinch.** Finch movements past S.C.P. in autumn:
- |           | October  |           |           |          | Nov.<br>7th | Total |
|-----------|----------|-----------|-----------|----------|-------------|-------|
|           | 8th      | 11th      | 12th      | 19th     |             |       |
| Goldfinch |          | 130 to SE | 175 to SE |          |             | 305   |
| Siskin    |          |           | 1 to E    |          |             | 1     |
| Linnet    | 185 to S | 180 to S  | 135 to S  | 380 to E | 240 to E    | 1120  |
| Redpoll   |          | 15 to SE  | 2 to E    |          |             | 17    |
- Passage to W was noted at Quarr on October 19th.
- 394 **Siskin.** C 50 between Shide and Blackwater on January 1st. 15 in Brading Marsh on February 23rd. 5 over Bembridge Spit on October 15th. Also 1 at S.C.P. – see under Goldfinch.  
 395 **Linnet.** For movements at S.C.P. see under Goldfinch.  
 396 **Twite.** 2 at Quarr on October 4th (FEH).  
 397 **Redpoll.** 2 at Newtown on January 8th. 2 arrived at S.C.P. from S on April 29th; for autumn records there see under Goldfinch. 5 in Brading Marsh on October 15th.  
 404 **Crossbill.** 2 at Osborne on March 26th. 1 flew W past S.C.P. on July 25th.  
 401 **Bullfinch.**  
 409 **Yellowhammer.**  
 415 **Clirl Bunting.** 2 in Brading Marsh on February 23rd (SMN).  
 421 **Reed Bunting.** 14 at Newtown on January 8th.  
 A ♀ visited the observers' garden on the outskirts of Shanklin on July 20th (LS, RAS).  
 410 **Corn Bunting.** Recorded in the breeding season in four different localities: by Military Road at Atherfield; Sheepwash; Leechmore Cross; Appleford. The last three are all S or SW of Godshill.

## AN INTRODUCTION TO POLLEN ANALYSIS

By R. A. Snow

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"From the middle twenties pollen analysis has been the dominant method for investigation of late-quaternary development of vegetation and climate. It has been perfected into a very refined instrument of research, highly versatile and giving surprisingly intimate glimpses into conditions of life during earlier periods. It has thus become one of the most important auxiliary sciences for archaeology, adding to the picture given by human relics and macro-fossils".

*"Textbook of Pollen Analysis"*, Faegri and Iversen, 3rd Edition, 1964.

The Society's interest in pollen analysis commences with an entry in the *Proceedings* for 1936<sup>1</sup> which refers to an investigation of the Mesolithic Flint Culture of the Isle of Wight by Hubert F. Poole, and in particular to a contribution in that account by Montagu H. Clifford, M.A., B.Sc., Botany School, Cambridge, "A Mesolithic Flora of the Isle of Wight", the result of an examination of the deposit capping the cliff at Brook and macro-fossil material from the Hazel Nut Bed, and for a pollen analysis undertaken by Mrs. S. A. Richards, of material from the "Peat Layer above the Plant Bed Brook".

This was followed in 1937<sup>2</sup> by a talk given by G. A. Sherwin, President, on the work done by Dr. and Mrs. Godwin at Peacock's Farm in the Cambridgeshire Fens, and compared fossil pollen recovered from Brook and Peacock's Farm, both sites having Mesolithic remains of similar character.

Interest in pollen continued through the war years although emphasis was directed by individuals towards honey production and bee keeping rather than geological or archaeological pollen analysis.

At the present time material from various sites is being examined, but most effort is directed to the collection of recent pollen for acetolysis treatment in the preparation of reference slides.

### Reference Slides

Pollen grains (and spores from fungi and ferns) are provided in nature with an outer shell or exine, which is almost indestructible, withstanding high temperatures and treatment with concentrated acids. Under anaerobic conditions the resistance to decay accounts for the widespread preservation of pollen grains as micro-fossils.

The structure and surface sculpture of the exine gives a distinct decorative pattern to the pollen grain, which, together with the size and shape, the shape, number and arrangement of pores (wall apertures) are the means by which identification is made possible.

The identification of fossil material is greatly assisted, where an unknown specimen can be compared with examples of recent pollen specially prepared in reference slides.

Fresh authenticated pollen is taken or teased from the anthers on to a paper and transferred to a centrifuge tube. The pollen is subjected to the chemical process of

<sup>1</sup> *Proceedings Isle of Wight Natural History and Archaeological Society*, 1936, vol. II, part VII, page 582.

<sup>2</sup> *Proceedings Isle of Wight Natural History and Archaeological Society*, 1936, vol. II, part VII, page 648.

acetolysis which removes the inner wall, or intine, the natural colour and oils, and the cell contents. The intine, colour and oils and cell contents are absent in fossil pollen. Thus the recent pollen is made suitable for comparative study.

### **Fossil Pollen and Spores**

Fossil material is recovered from sediment or peat layers by mechanical and chemical methods. A small sample of the material to be examined is broken down by maceration, i.e. boiled in a weak solution of caustic potash (6% KOH), which separates out the organic matter. The material is successively sieved and washed, centrifuged to concentrate the fine sediment bearing the pollen grains and subjected to chemical treatment, which ultimately leaves the fossil pollen free of the sediment and in a suitable state for slide mounting. The macroscopic remains retained on the sieve during washing are placed to one side for later examination.

### **Pollen Analysis**

A slide of the fossil pollen is examined with the microscope and the number of pollen grains of each individual plant present and identified is counted and recorded on a suitable record sheet. The sums of each plant recorded are expressed as a percentage of the total tree pollen, and are frequently presented as histograms. The final detail that emerges shows the prominent plant growth at the time of the deposition of the sediment or layer.

Thus a sample from an excavation producing a predominance of pollen grains from flowering trees, with little evidence of pollen from grass or other herbage, might well indicate a time scale, when the countryside was nearly all afforested.

On the other hand, a sample from a horizon nearer the present land surface, in the same sequence of deposition and therefore of later date, might show a decline in total tree pollen, and an increase in pollen of plants indicating more open vegetation, and should this contain pollen grains of plants associated with cultivation, a reasonable inference would be the destruction of woodlands (by man) for farming. Such evidence supported by archaeological considerations would most likely confirm the inference, for, although cereal type grasses are difficult to define, there are also the plants, the "weeds of cultivation", which indicate open land rather than that covered by trees.

### **Examination of Macroscopic Remains**

The macroscopic remains retained on the sieve, which may contain plant material, can be separated out with water in a Petri dish. When these are found of the same pollen types, this assists in confirming results and may be used in the study of plant history. Before the widespread use of pollen analysis, the study of macroscopic remains provided a relatively rapid appreciation of the general floristic features. During the early 1920s the Society was fortunate in having the valued assistance of those eminent authorities, E. M. Reid and M. E. J. Chandler, examining material from the Pleistocene beds at Bembridge. (See *Proceedings*, Vol. I, Pt. V, pp. 292-294).

In conclusion, however, it must be said that it is possible to recover recognisable pollen grains from far more situations than those yielding macroscopic remains. A cubic centimetre of material will yield perhaps scores or hundreds of grains, besides revealing the spores of fungi and ferns.

## HABITAT STUDIES No. 2 WOODLAND

Compiled from the botanical records of R. Kettell, B. Shepard and the late J. Bevis

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Several thousand years ago the Island was probably largely covered by forest. With the advent of agriculture and the demand for timber for fuel and to build houses, ships, furniture, etc., the forests have, over the years, been progressively cut down, and today all that remains is a series of scattered woods and copses situated mainly on the heavy clay to the north of the central chalk ridge, but with a few in other parts of the Island.

A sustained policy of afforestation by the Forestry Commission over the last fifty years has produced a number of large coniferous plantations at Brighstone, Westover, Parkhurst, Firestone, etc. More recently the policy is for a more mixed deciduous/coniferous type of woodland which will not only add to the beauty of the landscape in future years, but will also favour the growth of the native ground flora.

Most of our natural woods are of the Oak/Hazel type with varying numbers of other tree species such as Ash, Birch, Maple, Hawthorn, Holly and Beech. The herbaceous plants which form the ground cover are able to complete their life cycle by the time the leaf canopy above is dense enough to reduce the light. The best time to visit this type of wood is therefore in April and May when the floor is covered with an attractive display of Bluebells, Primroses, Celandines, Violets, Moschatel, Wood-sorrel, etc. A few plants come into flower in June and July after the spring display has died down. These include Common Cow-wheat, Enchanter's nightshade, Wood Avens, sedges and grasses. In some woods Bluebells, Dog's Mercury and Ramsons tend to become dominant, stifling and often killing off the plants underneath. This is particularly so with Ramsons.

It is essential that a deciduous wood should be regularly coppiced to control the growth of Hazel which, if left uncut, produces too much shade for plants to grow beneath it. In the past coppicing was a financially viable operation as its products were in great demand for wattle fencing, pea and bean sticks, etc. Nowadays there is little demand for these products with the result that an increasing number of our woods are becoming overgrown with bramble, hazel scrub and ivy, to the exclusion of the ground flora, and this may be the fate of most of our private woods in the future.

One of our commonest and most familiar trees, the English Elm is being killed off by Dutch Elm Disease, and the landscape is suffering as a result. It may possibly survive as a hedgerow shrub or re-establish itself by suckering. Two other trees, common in the last century, appear to be in a state of decline, due probably to the fact that they have been progressively cut down during coppicing operations. These are the Wild Service and the Wild Cherry. The former is confined mainly to woods bordering estuaries and adjoining the shore-line on the north coast of the Island. It is seldom seen now as a mature tree but as saplings derived from root suckers. The Wild Cherry, although still widespread, is becoming rarer in our woods.

In view of the possible disappearance of the ground flora in many of our woods as a result of neglect we have recorded the flora of twelve copses, as shown below, on a variety of soils. The results are shown in the accompanying table and can be used for comparative studies in future years.

	WOOD	MAP REF.	SOIL
1.	New Copse	553920	Marl
2.	Fattingpark	525910	Clay
3.	Parkhurst	470910	Clay
4.	Rowlands	567895	Clay
5.	Firestone	555910	Clay
6.	Combley Great Wood	545890	Clay
7.	Staplers	527887	Clay
8.	Eaglehead	580875	Chalk
9.	Highwoods and Mudless	445868	Chalk
10.	Westover	415852	Chalk
11.	Borthwood	570843	Sand
12.	America	568817	Sand

To avoid any confusion over the English names we have quoted from a single source "English Names of Wild Flowers" by Dony, Rob and Perring, and quoted the number from Dandy's "List of British Vascular Plants", 1958.

■ denotes presence

Dandy No.	Species	WOODS											
		1	2	3	4	5	6	7	8	9	10	11	12
336.1	Alder	■	■	■				■					
43.1	Anemone, Wood	■	■	■	■	■	■		■	■		■	■
307.1	Angelica, Wild	■	■	■	■	■	■			■	■	■	■
234.1	Apple, Crab		■		■	■		■					
461.1	Archangel, Yellow				■				■	■	■		■
376.1	Ash	■	■	■	■	■	■	■	■	■	■	■	■
216.1	Avens, Wood	■	■	■	■	■	■			■	■	■	■
339.1	Beech		■	■	■	■		■		■	■	■	
335.2	Birch, Downy	■	■	■		■	■	■				■	■
335.1	Birch, Silver			■		■	■	■				■	
97.4	Bittercress, Wavy	■	■		■	■	■					■	
413.1	Bittersweet					■			■	■	■		
226.1	Blackthorn	■	■	■		■	■	■	■	■	■		
600.1	Bluebell	■	■	■	■	■	■	■	■	■	■	■	■
8.1	Bracken	■	■	■		■	■	■		■	■	■	■
211.	Bramble	■	■	■	■	■	■	■	■	■	■	■	■
684.1	Brome, False	■	■			■	■	■	■				
622.1	Bryony, Black					■	■		■				
21.7	Buckler-fern, Broad	■	■	■		■	■	■	■			■	■
21.6	Buckler-fern, Narrow												
179.1	Buckthorn												
180.1	Buckthorn, Alder					■							
471.2	Bugle	■	■	■	■	■	■	■	■	■	■	■	■
592.1	Butcher's-broom		■	■								■	
46.10	Buttercup, Goldilocks								■				
638.1	Butterfly-orchid, Great				■	■							

Dandy No.	Species	WOODS											
		1	2	3	4	5	6	7	8	9	10	11	12
123.13	Campion, Red	■	■	■	■	■	■	■	■	■	■	■	■
46.24	Celandine, Lesser	■	■	■	■	■	■	■	■	■	■	■	■
336.4	Cherry, Wild			■					■	■		■	
340.1	Chestnut, Sweet		■	■	■		■		■				
485.12	Cleavers	■	■		■	■	■	■	■	■	■	■	
434.3	Cow-wheat, Common		■	■		■	■					■	
246.1	Currant, Red		■	■				■	■	■	■		
113.1	Daffodil, Wild					■	■						
113.4	Dog-violet, Common		■	■		■	■	■	■	■	■	■	■
113.5	Dog-violet, Early		■		■	■	■		■	■	■		
365.1	Dogwood	■	■		■	■	■	■	■	■	■	■	
487.2	Elder	■						■		■	■	■	
330.2	Elm, English			■		■					■	■	
258.1	Enchanter's-nightshade		■	■	■	■	■	■	■	■	■		■
13.1	Fern, Hard		■	■			■						■
670.3	Fescue, Giant			■								■	
424.1	Figwort, Common	■			■	■	■		■	■	■		■
424.2	Figwort, Water		■			■	■				■		
429.1	Foxglove	■					■	■				■	■
663.57	Fox-sedge, False		■										
518.1	Goldenrod			■		■							
242.1	Golden-saxifrage, Opp-lvd						■						■
246.6	Gooseberry	■	■					■	■	■			
187.1	Gorse	■	■	■		■		■		■	■	■	
467.1	Ground-ivy	■	■		■		■	■		■	■		
488.3	Guelder-rose	■	■	■		■	■	■					
683.2	Hairy-brome		■	■		■			■	■			
696.1	Hair-grass, Tufted		■	■		■	■	■		■			
14.1	Hart's-tongue	■	■		■		■	■		■	■		
229.2	Hawthorn	■	■	■	■	■	■	■	■	■	■	■	■
338.1	Hazel	■	■	■	■	■	■	■	■	■	■	■	
625.2	Helleborine, Brd-lvd												
168.16	Herb-robert	■	■	■	■	■	■	■		■	■	■	■
176.1	Holly	■	■	■	■	■	■	■	■	■		■	■
491.3	Honeysuckle	■	■	■	■	■	■	■	■		■	■	■
616.3	Iris, Stinking	■	■		■	■	■	■	■	■	■	■	
268.1	Ivy	■	■	■	■	■	■	■	■	■	■	■	■
18.1	Lady-fern	■	■	■									
32.1	Larch, European			■		■	■	■				■	
649.1	Lords-and-Ladies	■	■	■		■	■	■	■	■	■		
399.1	Lungwort, Narrow-lvd		■	■		■	■						
486.1	Madder, Wild			■									
21.1	Male-fern	■	■	■		■	■	■	■	■	■		
21.2	Male-fern, Scaly		■										
173.3	Maple		■	■	■	■		■	■	■			

Dandy No.	Species	WOODS											
		1	2	3	4	5	6	7	8	9	10	11	12
210.2	Meadowsweet		■		■	■	■	■			■		
681.1	Melick, Wood		■	■		■	■		■				
318.1	Mercury, Dogs		■		■	■	■	■	■	■	■		■
493.1	Moschatel	■	■		■	■	■	■	■	■	■		■
328.2	Nettle, common	■	■		■	■	■	■	■	■	■	■	
341.3	Oak, Pedunculate	■	■	■	■	■	■	■	■	■	■	■	■
642.7	Orchid, Early-purple		■		■	■	■	■	■				
233.1	Pear, Wild					■							
293.1	Pignut	■	■				■	■	■	■		■	
370.1	Pimpernel, Yellow	■	■		■	■	■	■		■			
33.1	Pine, Scots			■		■		■			■		
25.1	Polypody			■			■	■	■	■			
367.5	Primrose	■	■	■	■	■	■	■	■	■	■	■	
378.1	Privet, Wild	■	■	■	■	■	■	■	■	■	■	■	
607.12	Ramsons			■				■		■	■		
225.8	Rose, Dog		■	■		■		■	■	■	■		
225.1	Rose, Field			■		■		■			■		
470.4	Sage, Wood		■			■	■	■		■	■	■	
115.12	St. Johns-wort, Hairy								■	■	■		
115.11	St. Johns-wort, Slender			■		■	■				■		
115.9	St. Johns-wort, Trailing						■						
140.1	Sandwort, Three-nerved	■	■					■	■	■			
270.1	Sanicle	■	■	■	■	■	■	■		■	■		
663.2	Sedge, Distant					■	■						
663.5	Sedge, Green-ribbed			■			■		■				
663.24	Sedge, Pale			■		■	■						
663.22	Sedge, Pendulous			■		■	■						■
663.71	Sedge, Remote					■	■						
663.1	Sedge, Smooth-stalked	■				■	■						
232.7	Service-tree, Wild					■	■						
22.1	Shield-fern, Soft	■	■		■	■	■	■		■			■
430.7	Speedwell, Germander	■	■		■	■	■	■	■	■	■		
430.6	Speedwell, Wood	■	■			■	■	■	■	■	■		
177.1	Spindle		■	■		■		■			■	■	
15.1	Spleenwort, Black			■									
643.1	Spotted-orchid, Common		■	■	■	■	■	■	■	■	■		
251.2	Spurge-laurel							■					
319.17	Spurge, Wood	■	■	■	■	■	■	■	■	■	■		
133.5	Stitchwort, Greater	■	■		■	■	■	■	■	■	■		■
212.3	Strawberry, Barren	■	■	■		■	■	■	■	■	■	■	
215.1	Strawberry, Wild	■	■	■	■	■	■	■	■	■	■	■	
173.1	Sycamore	■	■	■		■	■	■	■	■	■	■	■
540.3	Thistle, Marsh	■	■	■	■	■			■	■	■		
439.1	Toothwort								■	■			
45.1	Traveller's-joy							■	■		■		

Dandy No.	Species	WOODS											
		1	2	3	4	5	6	7	8	9	10	11	12
115.1	Tutsan	■		■		■	■	■					
628.1	Twayblade, Common		■		■			■	■		■		
207.11	Vetch, Bitter					■	■						
113.1	Violet, Sweet					■			■	■			
488.1	Wayfaring-tree		■					■		■	■		
343.11	Willow, Goat									■	■		
343.12	Willow, Grey	■	■	■	■	■	■	■			■	■	■
254.3	Willowherb, Brd-lvd		■	■		■	■				■		
485.1	Woodruff					■	■	■	■				
606.3	Wood-rush, Great					■						■	■
606.1	Wood-rush, Hairy	■	■		■	■	■					■	■
606.9	Wood-rush, Heath		■	■		■	■						■
606.2	Wood-rush, Southern					■	■	■				■	
663.12	Wood-sedge		■	■	■	■	■	■	■	■			
663.23	Wood-sedge, Thin-spiked												
170.1	Wood-sorrel		■	■		■	■	■		■		■	■
459.7	Woundwort, Hedge				■	■			■		■		
663.8	Yellow-sedge, Common		■	■		■							

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#### ADVERTISEMENT

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“Habitat Studies, No. 2 – Woodland” is, like “Habitat Studies No. 1 – The Flora of the River Medina”, which appeared in *Proceedings* for 1977, Vol. VII, Part II, pp. 101-106, intended to be used in conjunction with the Society’s *Flora of the Isle of Wight*, by Bevis, Kettell and Shepard, published in 1978 (ISBN 0 9501636 1 9). Copies of the latter, machine-sewn and bound in Astralux cover, with floral design, are still available from bookshops, or direct from Miss K. Page, 42 Carisbrooke Road, Newport, Isle of Wight, at £3 plus postage. Hardback copies are all sold.

In order to assist members and others, who might wish to have their “Habitat Studies” with them when going on botanical expeditions, arrangements have been made to order reprints of these with simple printed paper covers. These are also available from bookshops, or may be obtained direct (20p each plus postage) from Miss K. Page or the Editor of *Proceedings*.

## CENTIPEDES IN THE ISLE OF WIGHT

By A. N. Keay (British Myriapod Group)

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In Morey's *Guide to the Natural History of the Isle of Wight*, published in 1909, the list of Myriapoda then known to occur on the Isle of Wight is shown on page 291, and comprises only six centipedes and five millipedes. Although at the time the author hoped to add a supplementary list at a later date, it does not seem that this has ever been done. Apart from a passing reference to the incidence of luminosity in certain species of Geophilid centipedes by Capt. G. C. C. Damant, C.B.E., R.N., in a paper entitled "Notes on some Light-producing Organisms" (*Proceedings*, Vol. IV, part V, pages 155-156), there has been no reference to this particular group of Arthropods in the Society's *Proceedings*, and it is high time that the record was put straight, especially as there have been some changes in nomenclature in the intervening period. This paper aims to fulfil this purpose, at least so far as the Centipedes are concerned.

Centipedes are pre-eminently woodland animals which have in some cases, adapted to de-forested conditions. A distinction must be made between true soil and litter inhabiting species. The Lithobiomorph centipedes tend to be confined to the litter layers since they are anatomically unsuited to burrowing into soil. Their long, powerful legs and the ability to hold the body rigid at speed make them suited to surface hunting. Lithobid species are susceptible to dessication and to uptake of excess water through the cuticle (due to imperfect wax cover on the cuticle, and the inability to close the spirical openings), and for these reasons may, at times of drought, penetrate deep into the soil crevices, or, at times of flood, may climb trees to escape the excess water.

The Geophilid centipedes are generally well adapted to life in the soil. They have ribbon-like bodies with short legs which are suitable for penetration of the fissures in the soil. It is not thought that Geophilid centipedes are capable of actually burrowing into the soil.

In the following lists those species not previously recorded in Morey are preceded by an asterisk (\*), and where the name given in Morey's list is different from that now used, this is given in brackets following the current accepted nomenclature.

### LITHOBID SPECIES

*Lithobius forficatus* (Linn.)

*Status Common*

The most widely distributed centipede in the Island, it is frequently found in gardens, woodland, grassland and even urban areas. This species often penetrates outbuildings and houses in search of prey. It is found in many choices of micro-site, sometimes in colonies of twelve or more.

*Lithobius variegatus* Leach

*Status Common*

Habitually a woodland species, *L. variegatus* has been recorded from all the major (and many of the minor) areas of woodland in the Island. It is the only lithobid which inhabits areas of coniferous woodland. The choice of micro-site is large, including leaf-litter, under bark and under human litter, e.g. old paper sacks. It is often found in the litter of hedgerows.

*\*L. crassipes* L. Koch

Status Local

Found in seemingly isolated pockets in woodland and grassland, but never in great numbers. This species is similar to *L. forficatus*, but is smaller and it is found in the same micro-sites. Generally found in larger numbers in slightly drier habitats, i.e. on the chalk.

*L. melanops* Newport

Status Local

A woodland species usually found in small numbers under loose bark on dead wood. Also found on dead wood in hedgerows especially on *Ulmus*. sp. Not recorded on the heavy clays in the North of the Island.

*\*L. dubosqui* Brolemann

Status Common

A small species, chestnut-brown in colour, which is usually found in woodland hedgerows, grassland, and cultivated land. Usually recorded from woodland litter, in moss and under the bark of decaying logs. It has also been recorded behind cracked mortar in old stone-built farm buildings.

*\*L. pilicornis* Newport

Status Rare

This species was previously recorded from only Pembroke, Cornwall and the Channel Isles. Two specimens have been recorded in the Medina Valley, close to Newport, and these may have been introduced via Newport docks. In the rest of its restricted range it is very common, being found in woodland, grassland and urban areas, usually in coastal areas.

*\*Lamyctes fulvicornis* Meinert

Status Local

This species is similar in most aspects to the *Lithobius* species, but is usually smaller (similar to *L. dubosqui* in size and colouration). Recorded almost exclusively from woodland but in small colonies. Males of this species have only been recorded in the Azores and Canary Isles, so it seems that reproduction is by parthenogenesis.

## GEOPHILIDS

*Cryptops hortensis* Leach

Status Local

This species is similar in build to the *Lithobius* species, but has 21 body segments to the 15 of the *Lithobius* species. It is found both in the soil and in the litter layers, and is capable of exploiting both situations as it is a fast moving species. Recorded from wet sites such as Freshwater Marsh.

*\*Brachygeophilus truncorum* (Bergso and Meinert)

Status General

A woodland species, usually associated with rotting timber where it is found between the bark and the wood. It is very pale in colour and at a quick glance looks similar to a small worm with a darker head and antennae.

*\*Chaetechelyne vesuviana* Newport

Status Rare

One of the largest species found in Britain. It is a true soil creature only rarely being found on the surface of the soil. Recorded from three sites on the heavy clays in the north of the Island. Recorded from only three southern counties in Britain apart from the Island.

\**Haplophilus subterraneus* Shaw *Status* Local

The largest British centipede, attaining 60mm in length. Recorded from woodland and old pasture on the heavy soils in the north of the Island. It also occurs in deciduous leaf-litter and in grass litter.

\**Geophilus carpophagus* Leach *Status* Very Local

A long, stout species which is reddish-brown in colour and displays phosphorescence, especially when disturbed. It has only been recorded from woodland in the Island, but has a wide range of micro-habitat within the woodland.

*Necrophleophagus longicornis* Leach (*Geophilus longicornis* Leach in Morey) *Status* Common

Has been recorded from most terrestrial habitats and a great variety of micro-sites. Very common in gardens and is mistakenly regarded as a pest by many local gardeners.

\**Schendyla nemorensis* C. L. Koch *Status* Rare

Recorded from only two sites, both in deciduous woodland. In both cases the micro-site was beneath the bark of decomposing logs. It is probable that this species is more widespread than is indicated, but not common in any area.

*Strigamia crassipes* C. L. Koch (*Linotaenia crassipes*, Koch in Morey) *Status* Local

A woodland species recorded from deciduous woodland, usually associated with oak/ash litter. Specimens have been recorded from Parkhurst Forest, Firestone Copse and Swanpond Copse, all sites on the heavy clay soils. This species demonstrates phosphorescence.

\**Strigamia maritima* Leach *Status* Local

This species is entirely littoral only inhabiting clean beaches (i.e. not muddy). It is found under rocks and in shingle banks and has been recorded from several sites around the coast.

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## METEOROLOGICAL REPORT FOR 1978

By **Kenneth J. Hosking, F.R.Met.S.**

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The following account and summary of the weather in 1978 has been compiled from Ryde's records during the year, and comparisons and averages now span 61 years, since 1st January, 1918. The account is reproduced by kind permission of the I.W. County Press.

### RAINFALL

The 1978 total of 29.54in. compared with an annual average of 30.45in. and the 1977 total of 31.52in.

Only 1974 and 1977 during the past eight years have given rainfall totals in excess of average.

The 1978 deficiency was more than accounted for by the driest autumn in the Island since at least 1840.

Only 1.64 in. of rain was measured during the months of September, October and November – less than half of the total recorded during the previous driest autumn at Ryde which gave 3.39 in. in 1919.

During 1978, January, February, March, April, July and December had rainfall totals in excess of their monthly averages – the latter month with 6.98 in. being only wetter in 1934 and 1959.

Twenty-four hour totals at Ryde of 1.30 in., 1.07 in. and 1.71 in. to 10 a.m. BST on 2nd May, 31st July and 1st August respectively proved the year's wettest days.

The exceptional deluge between 7 a.m. and 3 p.m. on 31st July accounted for nearly the whole of the two latter falls and in the space of eight hours approximately 3½ in. fell at Binstead and 4 in. at Seaview.

On average, a fall of one inch or more in a 24-hour period ended at 9 a.m. GMT occurs about five times over a two year period – one inch of rain being the equivalent of 101 tons of water to the acre.

The very dry autumn was followed between 7th and 13th December with 3.75 in. of rain during an exceptionally stormy week.

During 1978 Ryde had 165 "rain-days" as compared with an annual average of 156 (A "rain-day" is a 24-hour period ended at 9 a.m. during which at least 0.01 in. of rain is measured).

### SUNSHINE

The 1978 total at Ryde of 1592.2 hours – although slightly in excess of the 1977 total of 1570.8 hours – was again well below the 60-year annual average there of 1748.2 hours.

Of the 59 sunless days during 1978 only three occurred during the holiday months from June to September inclusive in spite of the fact that only July 1919 had less sunshine at Ryde than did this month in 1978.

There were 11 sunless days in February and as many as 14 during a very dull December.

## TEMPERATURES

The maximum shade temperature reached or exceeded 70°F on 27 days during 1978 as compared with 26 days during the previous year and an annual average of 39 such occurrences at Ryde.

The temperature on the warmest day (14th July) was no higher than 77.2°F – a reading exceeded on 23 days during the hot summer of 1976.

During 1978 minimum air temperature fell to 32°F or below on 21 occasions (nine of these in February during the coldest month since 1969) as compared with an annual average of 23 such days and the record of 69 during 1963.

The coldest day since 30th January, 1972, with a maximum of 31.7°F came on the last day of the year while a minimum reading of 23°F on 11th February was lower than any since 31st January, 1972.

The April mean maximum temperature of 50.3°F proved the lowest for this month at Ryde since records began in 1918.

More than compensating, however, were the well above average temperatures consistently recorded during October and most of November.

In fact, only November 1938 was milder than this month in 1978.

The 1978 annual mean maximum and minimum temperatures of 56.5°F and 46.4°F compared with long term annual means at Ryde of 57°F and 46°F respectively.

## MONTHLY SUMMARY OF WEATHER AT RYDE, ISLE OF WIGHT 1978

	Hours of Sunshine	Rain mm.	Screen Temperatures		Extremes		Mean Monthly Temp. °C
			Max. Mean °C	Min. Mean °C	°C	°C	
January	74.7	98.4	7.4	2.5	10.4	-2.6	5.0
February	63.1	70.4	6.2	2.0	12.5	-5.0	4.1
March	127.9	73.2	10.2	4.4	14.2	-0.6	7.3
April	132.0	68.4	10.2	4.7	13.9	-0.7	7.5
May	220.5	50.9	16.0	8.7	23.4	5.2	12.3
June	207.8	32.0	18.3	11.5	23.9	6.1	14.9
July	140.7	98.5	19.1	13.2	25.1	9.4	16.1
August	210.1	39.9	19.7	13.1	22.1	8.3	16.4
September	185.1	17.9	18.7	12.3	21.7	7.9	15.5
October	111.4	4.7	15.8	10.5	20.0	4.8	13.1
November	89.1	18.9	12.7	8.1	16.8	-0.6	10.4
December	29.8	177.2	9.1	5.1	14.8	-3.2	7.1

Totals 1592.2  
 750.4 mm  
 (29.54")  
 (25.4 mm=1 inch)

**GENERAL**

The year provided its usual quota of gales – the most notable being a severe northerly on 11th January, an easterly on 18th/19th February and a south-westerly on 12th December.

Thunder was heard on nine days in all but the storms were only spectacularly severe on 10th January, 29th July, 7th August and 13th December.

Light falls of snow occurred on 19th January and 21st December but were insignificant in comparison with the Island's worst blizzard for many years which gave heavy falls and coincided with a severe easterly gale on 18th and 19th February.

To end the year came the sudden drop in temperature and heavy fall of snow on the evening of 30th December with a near gale force north easterly wind to add to our discomfort.

I must stress that this summary relates to Ryde's official records and point out that, although some variations have naturally occurred at other Island resorts, the general weather pattern depicted is broadly indicative of that experienced throughout the Island and adjacent mainland areas of central Southern England.

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## NATURAL HISTORY AND ARCHAEOLOGICAL NOTES FOR 1978

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**Archaeological finds near Calbourne**—Mr. David Tomalin, assistant curator of Carisbrooke Castle Museum, showed an early Bronze Age urn (probably of the period 1600 to 1400 BC) at an Exhibition of Island Treasures at Ryde Library during January. This was one of two urns found during a rescue excavation dig last year on the downs near Calbourne. It is considered an interesting discovery, because the two urns, enlarged food vessels, both appear to have been made by the same person. This is unusual as only 30 such pairs have been discovered. A skeleton was also found in a barrow on the same dig, and is being examined at Sheffield University.

I.W. COUNTY PRESS 7/1/78

**Observation of Foxes**—While out on a walk on Monday, 13th February, I had the great fortune of seeing something I've never witnessed before and may never see again – i.e. a pair of foxes coupled in a "tie". According to various fox observers, this act is generally performed in strict privacy, believed to be a nocturnal habit. However, curiously enough, this was seen in the middle of an open, ploughed field under the noon-day sun. We missed all the preliminaries, including the actual mounting, coming in on the following "tie". Although not extremely close, we viewed the two through binoculars. Standing end to end, one brush held overhead, presumably the female's, the other brush hanging down, they did not stand perfectly still, but gradually worked their way round in a circle, possibly to get a view of any possible approaching disturbances. No screams were made and all was very quiet, but they did nip at each other occasionally. The time which elapsed during the coupling from our arrival was 20 minutes (11.45 to 12.05). As they uncoupled, the two simultaneously sat down and proceeded to "inspect their privates". After about 10 minutes doing such and looking round, they casually headed off across the field and disappeared into the scrub. We saw four foxes all together that day – one was first seen lying casually in the sun at Couthy Butt, a ruin situated off the northside of Head Down. The coupled pair were in a field just south of Down Court Farm, on the north slope of Head Down. The fourth fox was seen crossing an adjacent field heading towards Couthy Butt.

MRS. AUDREY WILKINSON 15/2/78

**Foxes in Newport**—Foxes, which have gradually increased in number on the Island, are now penetrating urban areas – and the latest sightings have been in Newport. About nine bantams belonging to Dr. J. C. Jones, of Carisbrooke Road, have recently been killed by a single fox hunting for food. There have also been reported sightings at Highfield Road in the middle of a built-up residential area in Newport, and Lugley Street in the town centre.

I.W. COUNTY PRESS 4/3/78

**Landslip at Blackgang**—Two houses, a holiday cottage and an entire naturist holiday camp were devastated as parts of a stretch of coastline half a mile long and covering 30 acres slid towards the sea – the biggest landslide on the Island for half a century. Huge fissures appeared in the ground and sections of road and walling and hedges and trees were flung up at crazy angles. One observer described the scene as "just like an earthquake". . . Residents were warned by tremors that preceded the slip and one was hurt. But property valued together by various owners at over £150,000 was totally wrecked.

I.W. COUNTY PRESS 11/3/78

**Wallaby at Blackwater**—Winnie the wallaby, who has been living in the wild for almost two years after escaping from the Robin Hill Country Park, Arreton, has been sighted again, this time at Blackwater. The four-year old wallaby, which stands 2ft. 6ins. high, escaped when a child forgot to shut the gate to a large enclosure which Winnie shared with other animals. She had previously been seen around the Haven-street area, where she had been living off grasses, branches and bushes, but on Tuesday evening a motorist reported seeing Winnie in his headlights at Blackwater Hollow, near Newport.

I.W. COUNTY PRESS 13/5/78

**New Dinosaur Remains from the Wealden**—During the course of a Geology Section meeting at Cowleaze Chine on the 15th July some new material of the small ornithischian dinosaur, *Hypsilophodon*, were discovered in red-mottled grey marls immediately beneath the *Hypsilophodon* Bed (s.s.), Vectis Formation (=Wealden Shales) about 200 metres west of the chine. The specimens recovered include skull fragments (left maxilla, right post-orbital, one isolated tooth), numerous vertebrae, the distal halves of both femurs and a solitary tarsal bone. From the preservation of the material and the position in which it was found, it seems likely that originally a partly disarticulated skeleton had originally been present, but had been mostly lost in cliff falls.

A few days later, while attempting to locate further *Hypsilophodon* bones, Mr. Steven Hutt discovered part of an articulated skeleton of an *Iguanodon* in the red marls of the Wessex Formation (=Wealden Marls) about 10 metres below the *Hypsilophodon* Bed and about 400 metres west of the chine. Like the *Hypsilophodon* much of the skeleton had already been lost in cliff falls. Recovery was also hampered by the very fragile nature of the remaining bones. In spite of the difficulties it proved possible to collect a complete left arm, an almost complete right arm, parts of the pelvis, an almost complete right leg, the left femur, the left fibula and some left toe bones. These specimens appear to represent an animal about 10 metres in length.

All the specimens referred to have been deposited in the Museum of I.W. Geology in Sandown, where it is hoped that the *Iguanodon* remains will be on display in the near future.

DR. A. INSOLE, Curator

**Introduction of Fire-bellied Newts**—During July, 1978, I purchased some five Fire-bellied Newts, *Triturus pyrrhogaster*, which are native to Japan, and released them in my newly created mill pond. They were regularly observed rising to the surface during the ensuing months and appear to have bred successfully, as a number of young newts of this species were seen.

O. H. FRAZER, Mottistone Mill, Brighthstone, I.W.

**Rooks taking Ramshorn Snails**—Several times during the summers of 1977 and 1978 a Rook was seen to come down to the garden pond, which has stone-coloured plastic lining, and remove a ramshorn snail, which it carried a distance of at least a quarter of a mile. Empty shells have also been found scattered over the garden. Are there any other instances of this behaviour?

LORNA SNOW, Upper Hyde, Shanklin, I.W.

**The Oldest Moles**—A recent paper (Sige, B., Crochet, J. Y. & Insole, A., 1977. Les plus vieilles taupes. *Geobios, Mem. special 1*: 141-157) describes another new fossil mammal, *Eotalpa anglica*, from the Lower Headon Beds of Headon Hill. Although only two isolated upper molars are known, they are sufficiently characteristic to provide the oldest fossil record of the talpids or moles. Also described in the paper are some isolated teeth from the Middle Eocene of France and the Late Eocene of Spain, which, although not talpids, appear to be close to an ancestral form. The importance of these specimens is that for the first time there is a suggestion that the talpids originated in Europe perhaps as early as the Middle Eocene. Previously it had been considered that the talpids evolved in Asia and migrated into Europe in the Lower Oligocene.

DR. A. INSOLE

**Re-introduction of Tree Frogs**—On Sunday, 17th September, 1978, four male Tree Frogs, *Hyla arborea*, were released on the bank above the newly created mill pond as an experiment to see how they would fare, before introducing females. In the event they seemed to settle in well and were frequently seen throughout October and the beginning of November, when the weather changed and a severe winter followed.

O. H. FRAZER, Mottistone Mill, Brighstone, I.W.

**Grey Squirrel at Wootton**—When driving into work on the morning of Monday, 23rd October, 1978, Miss J. Breakell saw what she thought was a Grey Squirrel, *Sciurus carolinensis*, which had been knocked down by another driver. She returned to the scene and collected the carcass, which she took to the Health Department at Northwood House, Cowes. Subsequent examination showed that it was indeed a mature Grey Squirrel, and it had been run over on the road at Palmer's Brook, near Wootton.

O. H. FRAZER 5/11/78

**Polecat-Ferret at Newchurch**—On Friday, 1st December, 1978, Mr. R. W. Gallimore was driving home through Newchurch, when a strange animal sprang from the verge in front of his car and he was unable to avoid running it over. The carcass was sent to me and was identified as a well-grown male Polecat-ferret, in good condition, with the following measurements:

Head and body – 440mm    Tail – 160mm    Weight – 1.3kg.

Examination of the prepared skull confirmed the identification of a Polecat-ferret, although the marking of the animal was much closer to the Polecat than that of the ferret.

O. H. FRAZER 10/12/78

**Rare Fish at Binnel Bay**—On 26th December, 1978, I found an unusual fish stranded on the shore at Binnel Bay, St. Lawrence. I left the fish with Dr. Morgan-Huws, who was able to take it to Dr. Michael Cullen at the Marine Laboratory, Portsmouth Polytechnic. By this time the fish was in poor condition, so I sent him some sketches and a photograph taken of the specimen, when first found, and he was able to confirm my suspicions that the fish was a Red Band Fish, *Cepola rubescens*. According to Dr. Cullen, there are reports of this fish being stranded on various beaches in the area, but these are infrequent, and this was the first specimen to be received at the Laboratory.

DR. C. POPE 2/2/79

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1. Papers should be clearly written, typed for preference with double spacing, on one side of the paper only, leaving a wide margin all round.
2. Examination of the papers found in this issue will give a clear indication of the general principles of lay-out, etc., and it is helpful if contributors would bear this in mind, when preparing their manuscripts.
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4. Papers should be written in good English, and spelling should be that of the *Oxford English Dictionary*, or similar standard dictionaries.
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