

**Vol. V**

**Part VII**

**PROCEEDINGS  
OF THE  
ISLE OF WIGHT  
NATURAL HISTORY  
AND  
ARCHÆOLOGICAL SOCIETY  
FOR 1962**

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**Price (to Non-Members) 10/- post free**

**Issued October, 1964.**

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**Isle of Wight:  
THE COUNTY PRESS, NEWPORT.  
92/1964.**

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## LIST OF OFFICERS.

(Elected at the Annual General Meeting, 19th January, 1963).

### President :

MRS. M. M. SEABROKE

### Vice-Presidents :

F. BRIGHT, Newport.  
MISS G. BULLOCK, Binstead.  
CAPT. G. C. C. DAMANT, C.B.E., R.N., East Cowes.  
G. C. DUNNING, B.Sc., F.S.A., London.  
O. H. FRAZER, Brighstone.  
A. L. HUTCHINSON, M.A., Carisbrooke.  
R. J. MACHIN, Newport.  
E. W. MARVIN, Cowes.  
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D. ROBERTS, Wootton.  
J. STAFFORD, M.A., Wootton.  
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MRS. D. FRAZER	L. C. PREBBLE
MRS. I. GASKIN	G. H. SMITH
J. D. JONES ( <i>ex-officio</i> )	J. STAFFORD, M.A. ( <i>ex-officio</i> )
R. J. MACHIN	S. T. WAITE, B.Sc. ( <i>ex-officio</i> )
MISS E. M. NEWNHAM	MISS T. WHITE ( <i>ex-officio</i> )
MRS. A. W. WILKINSON	

### Secretary :

J. E. COOPER, Cliff Close, 99 Victoria Avenue, Shanklin, I.W.

### Treasurer :

A. J. HENRY, Eckford, Partlands Avenue, Ryde, I.W.

### Editor of Proceedings :

J. D. JONES, Carisbrooke Castle Museum, Newport, I.W.

### Bird Recorder :

J. STAFFORD, M.A., Westering, Moor Lane, Brighstone, I.W.

### Flower Recorder :

MISS T. WHITE, Seascape, Lower Gill's Cliff Road, Ventnor, I.W.

### Conservation Officer :

S. T. WAITE, B.Sc., Whitewings, Queen's Road, Cowes, I.W.

(Publications sent in exchange should be addressed to the Editor as above).

(CCLXXVII)

## NEW MEMBERS.

---

- MR. D. W. AXTON, Chalk Down, Adgestone Lane, Brading.  
MRS. D. W. AXTON, Chalk Down, Adgestone Lane, Brading.  
MR. G. P. BRYER-ASH, c/o Island Oils, Ltd., 2 Little London, Newport.  
MRS. F. I. BRIGGS, 39 Denness Road, Lake, Sandown.  
MR. F. J. BENNET, The Wakes, Shorwell.  
MRS. F. J. BENNET, The Wakes, Shorwell.  
MR. S. F. BALL, Fairhaven, Blackbridge Road, Freshwater Bay.  
MRS. S. F. BALL, Fairhaven, Blackbridge Road, Freshwater Bay.  
MISS D. A. COBR, The Linnet, Head Down, Niton.  
MR. G. H. CASS, 16 Wray Street, Ryde.  
MRS. G. H. CASS, 16 Wray Street, Ryde.  
MR. T. R. CASS, 16 Wray Street, Ryde.  
MR. B. C. COGGIN, Odessa, Castle Lane, Wroxall.  
MISS M. B. COGGIN, Odessa, Castle Lane, Wroxall.  
MR. P. E. COLEMAN, 40 Woodbridge Road, Knowle, Bristol, 4.  
MR. E. A. COOPER, 7 The Close, Winchester.  
MRS. E. A. COOPER, 7 The Close, Winchester.  
MR. N. W. N. DAVIS, Lynton, Fairlee Road, Newport.  
MR. T. D. FEARNEHOUGH, 26 Green Lane, Shanklin.  
MR. J. M. GUNN, West Wight, St. James Close, Yarmouth.  
MRS. J. M. GUNN, West Wight, St. James Close, Yarmouth.  
MISS I. E. BRENT-GOOD, Norlands, Yarmouth.  
LADY GOULD, Snape House, Yarmouth.  
MR. R. HASTAIN, Park View, Westhill Road, Shanklin.  
MRS. D. HEWITT, 21 St. Thomas's Street, Ryde.  
MR. K. J. HAWKER, 138 Mill Hill Road, Cowes.  
MRS. K. J. HAWKER, 138 Mill Hill Road, Cowes.  
MR. W. B. HAILEY, Brook Villa, Brook.  
MISS K. M. B. HACK, The Little Mount, Totland Bay.  
MR. R. L. HAMBURY, Port House, St. James Street, Yarmouth.  
MRS. R. L. HAMBURY, Port House, St. James Street, Yarmouth.  
MR. E. W. JENKINS, The Orchard, Fishbourne.  
MISS R. J. LIMBIRD, Flat C, 60 Monkton Street, Ryde.  
MISS C. MATTHEWS, 28 Atherley Road, Shanklin.  
MR. I. J. MOORE, 31 Castle Street, Carisbrooke.  
MR. R. P. MARSHALL, School House, Chillerton.  
MRS. D. MILLINGTON, Zigeunev, Wall Lane, Brading.  
MR. L. H. SLADE, Arreton Manor, Arreton.  
MRS. L. H. SLADE, Arreton Manor, Arreton.  
MR. V. G. SYMONDS, Inwood, Great Preston Road, Ryde.  
MRS. V. G. SYMONDS, Inwood, Great Preston Road, Ryde.  
MR. P. J. SCAPENS, 15 Park View, Gills Cliff Road, Ventnor.  
MISS J. M. THOMAS, 3 St. James Close, Yarmouth.  
MRS. UZIELLI, Heathercroft, Totland Bay.  
MISS C. WEARN, Shore End, Queen's Road, Cowes.  
DR. J. B. WILLIAMSON, Southcliff, Ventnor.  
MRS. J. B. WILLIAMSON, Southcliff, Ventnor.

## OBITUARY.

---

Deceased, 1962 : MR. E. ST. JOHN BURTON, Barton-on-Sea, Hants.

One of the Society's oldest members, Mr. St. John Burton, though living off the Island, kept up his membership throughout his life.

## BALANCE SHEET, 1962.

RECEIPTS.						£	s.	d.
Balance brought forward	.....	.....	.....	.....	.....	140	6	11
Subscriptions	.....	.....	.....	.....	.....	196	15	8
Donations	.....	.....	.....	.....	.....	33	5	0
Sale of <i>Proceedings</i> , Reprints, and Bird Reports	.....	.....	.....	.....	.....	7	10	5
Interest on Investments and Deposit Accounts	.....	.....	.....	.....	.....	13	9	9
Newtown Fund (Exhibitions, Film Shows, Donations, etc.)	.....	.....	.....	.....	.....	166	7	5
Profit on Teas at A.G.M.	.....	.....	.....	.....	.....	4	4	7
						£561	19	9

EXPENDITURE.						£	s.	d.
Printing <i>Proceedings</i> , Reprints, and Bird Reports	.....	.....	.....	.....	.....	127	10	0
Other Printing	.....	.....	.....	.....	.....	15	9	8
Stationery	.....	.....	.....	.....	.....	5	11	8
Prizes, etc.	.....	.....	.....	.....	.....	4	5	0
Hire of Halls, Caretakers' Fees, etc.	.....	.....	.....	.....	.....	17	0	6
Subscriptions and Donations	.....	.....	.....	.....	.....	6	0	0
National Trust (2nd Payment <i>re</i> Newtown)	.....	.....	.....	.....	.....	75	0	0
Archaeological Photographs (from special donations)	.....	.....	.....	.....	.....	4	10	0
Petty Cash (including Postages)	.....	.....	.....	.....	.....	14	6	10
Sundries	.....	.....	.....	.....	.....	.....	15	10
Balance in hand.....	.....	.....	.....	.....	.....	291	10	3
						£561	19	9

Investment  $3\frac{1}{2}$  Per Cent. War Stock (market value estimated) ..... £198 0 0

Audited and found correct.

(Signed) G. POLLARD,  
J. AITCHISON,

(Signed) A. J. HENRY,  
*Hon. Treasurer.*

*Hon. Auditors.*

## GENERAL MEETINGS, EXHIBITIONS, AND EXCURSIONS.

---

**General Meeting** held on Saturday 17th February, 1962.

The President in the chair.

The afternoon was devoted to microscopy, the speaker being Mr. D. Roberts, of Wootton, himself an experienced microscopist, who gave a lecture on "Hairs, fibres, paper, etc.," including notes and a projection of micro-slides made by the late Mr. E. W. Pollard, a former President of the Society. Mr. Roberts explained the details of both animal and plant fibres, which were well illustrated on the screen, and then he passed to the history and detail of paper construction. Here again the slides proved most informative, and included paper of the *Isle of Wight County Press*, the excellent quality of which was clearly apparent. The lecturer also gave details of the parts of a microscope, and the methods by which the best use of the instrument could be achieved. Mr. Roberts and other members of the Society brought microscopes to the meeting, to enable a more intimate study of the slides to be made.

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**Informal Meeting** held on Friday 23rd February, 1962.

Subject for discussion—Botany.

Records were discussed and are embodied in the Flower Report.

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**General Meeting** held on Friday 2nd March, 1962.

The President in the chair.

The outstanding collection of colour transparencies of orchids of the Isle of Wight, taken by Mr. Clifford Matthews, was shown to an enthusiastic audience. The commentary was given by the President. Colour transparencies taken by other members were also shown, including a very good series by Mr. A. J. Henry.

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**General Meeting** held on Friday 16th March, 1962.

The President in the chair.

Members were shown an attractive new series of 8mm. and 16mm. films, colour-slides, photographs, and maps of the 1961 survey of Newtown. In his introductory remarks Mr. Frazer spoke of the progress of the survey from its inception under the leadership of Mr. G. J. Lawrence,

with the assistance of pupils from Cowes Secondary School. He also referred to the strong efforts being made to establish a Nature Reserve covering the Newtown area. Mr. Frazer then showed a series of colour-slides, covering bird life and botany, taken during the 1961 survey, and coloured films showing various aspects of the survey were then shown by Mr. and Mrs. Lawrence. The subjects covered mainly comprised the bird life of the area, including swans, moorhens, mallards, redshanks, ringed plovers, shelducks, oyster-catchers, terns, kingfishers, skylarks, and others. Members were shown interesting glimpses of the team's method of working, and particularly the "hides" by means of which close-up pictures of the birds and their young were obtained.

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**Exhibition** — "Local Look" at the Island Industries Fair, 9th to 14th April, 1962.

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**Informal Meeting** held on Friday 13th April, 1962.

Subject for discussion—Ornithology.

Records were discussed and are embodied in the Bird Report.

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**Visit to Arreton** Saturday 14th April, 1962.

Leader—Mr. G. White.

The afternoon began with a visit to the tithe barn, by kind permission of Mr. A. E. Brown, and Mr. White drew attention to interesting points in the construction of this and some of the other old farm buildings. He then led the way along the footpath up the down, to obtain a good view of the area and pointed out the features of the medieval field system. At Downend Mr. White told the story associated with the nearby Michael Morey's Hump, and Mr. J. D. Jones (Curator of Carisbrooke Castle Museum) showed a bronze knife blade and a bone comb, discovered when the barrow was excavated in the early 1800s. After returning to the village members visited the church, where the Vicar, the Reverend F. A. E. Chadwick, described the stages of the building's construction, and displayed the church plate and registers.

---

**Informal Meeting** held on Friday 11th May, 1962.

Subject—Ornithology.

Recordings of bird songs were played by Mr. O. H. Frazer, with commentaries by Mr. J. Stafford.

### **Visit to Alverstone Saturday 12th May, 1962.**

At this evening meeting more than thirty members met at Alverstone Mill and walked in the area to hear the songs of birds. Among the 29 birds calling were the nightingale, willow warbler, sedge and reed warblers, blackbird, thrush, reed bunting, whitethroat, and cuckoo.

---

### **Visit to Cliff Farm, Shanklin, Friday 25th May, 1962.**

By kind permission of Mr. B. Parsons and Mr. D. Buckhurst (the latter acting as guide).

This was another evening meeting. After inspecting the rain gauge and some interesting meteorological records, members were conducted round the farm and were first shown the influence of the geological strata on the cultivation of crops. The situation of the land at the junction of cretaceous beds, including gault clay and greensand, was explained, and the resulting presence of spring water and its availability for the supply of the farm was demonstrated. The visitors were next shown the red poll cattle, and a visit was made to the dairy. A fine old farm wagon was inspected, and an interesting indoor exhibition of old-time curiosities, horse-brasses, and other items was also shown. Excellent refreshments were provided by Mrs. Parsons and Mrs. Cooper.

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### **Annual Newtown Survey 9th to 17th June, 1962.**

This was under the supervision of the President, with valuable assistance from several members. Student members taking part included 25 pupils from the Priory Secondary Girls' School, 7 pupils from Cowes Secondary School, and 1 pupil from Sandown Grammar School. The weather was perfect throughout the survey, and field work was carried out in the Brickfield area by kind permission of Mr. B. Hayward. Hides were erected and moved up close to the nests of the little tern, ringed plover, black-headed gull, oyster-catcher, and redshank. With the exception of the nest of the little tern, which was most unfortunately trodden on by a party of yachtsmen, the eggs in all the nests under observation hatched in the course of the week, and most valuable observations were made of the feeding and care of young. Several photographs were taken.

The kingfisher's nest, in which the young had hatched, was visited, and some pond-dipping was done.

---

### **Visit to Yarmouth and Freshwater Saturday 23rd June, 1962.**

Leader—The President.

Members met at the car park at Yarmouth and walked along the former railway line to Freshwater. Many interesting field and marsh

birds and plants were observed. The return journey to Yarmouth was made by the public footpath on the west side of the River Yar, a stop being made at a well-established pond, where interesting specimens were taken by net for observation and return. The President referred to the proposed recreational park in the area, and invited discussion as to the preservation of natural beauty and wild life. He also stressed the value of individual nature observation and reports by members.

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**Visit to Brading Down** Saturday 14th July, 1962.

Leader—The President.

This afternoon meeting took the form of a ramble of general natural history interest. In addition to the President as leader, Mr. T. D. Fearnough, an experienced entomologist, was also present. Many interesting species of Orthoptera and Lepidoptera were found. Butterflies included Common Blue, Red Admiral, Marbled White, Tortoiseshell, Small Heath, and Meadow Brown; and moths included Six-spot Burnet, Carpet, and Silver. The flora included contoneaster, squinancy-wort, fairy flax, yellow centaury, and unusual forms of scabious.

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**Visit to Apesdown** Sunday 26th August, 1962.

Leader—Mrs. D. Frazer.

About 30 members met at Apesdown Farm to explore the adjacent valley. Under the guidance of the leader, members were able to appreciate the wide variety of chalk-loving plants, while some of the associated insects were caught and identified by enthusiastic entomologist members. Many reptiles were found under some pieces of metal that had been put there some time before. Some fine specimens of the slow-worm were handled by members, including one over 18 inches long, which was borrowed for the "Local Look" exhibition. A good example of a grass snake was also caught, and the President demonstrated the safe method of catching and handling an adder. Members fortunately arrived back at the farm buildings as heavy rain started, and they were then able to study the very interesting collection of fossils brought by Allen Brading.

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**Exhibition**—"Local Look," held at the Seely Hall, Brook, 30th July to 2nd September, 1962.

In its second season, this time of five weeks' duration, the exhibition charted a steady rise throughout of attendances, takings, profits, public interest, and widespread co-operation. It was held at the Seely Hall, Brook, for the entire run, and attendances totalled 2961 (made up of 2071 adults and 890 children). The noticeable predominance of adult visitors was again evident. Intending visitors had to be turned away when closing day arrived.

Total receipts amounted to £161 13s. 1d., and total expenses to £53 19s. 10d. Thus the "Local Look" committee was able to hand over to the Society another profit, this time of £105 13s. 3d., plus £2 for the General Fund. Although expenses were higher this session, this was a healthy sign, for the exhibition had been much more self-supporting than before. Printing, advertising, and part of the transport were all paid for this time from exhibition receipts. Also the run was a week longer than in 1961, and considerably more publicity was undertaken.

Receipts included donations of £15 6s. 10d., sales of 282 seaweed cards £7 1s. 0d., 377 bird cards £9 8s. 0d., 18 "Local Look" photographs 9s.; and extra to these were sales of publications for General Fund, viz., *Proceedings* 10s., Bird Reports 17s. 6d., Geological Handbooks 12s. 6d.

Visitors included Sir Julian Huxley, Professor Frazer, Barbara Jones (illustrator of Penguin publications), the Medical Officer of Health from Bermuda, and degree students who took copious notes from the displays.

There was most helpful co-operation from local residents, the Brook Women's Institute lending their prize-winning scrapbook, which proved a most popular feature. Several W.I. members also gave help with the stewarding duties, which were efficiently performed by 47 of the Society's members, and 12 non-members. The "Local Look" committee records its gratitude to these and all others, particularly the President and Mrs. Frazer, who helped in so many ways towards the mounting of the exhibition.

#### **Visit to Christchurch Saturday 15th September, 1962.**

Leader—Mr. Richard Seabroke.

Sixteen members and friends took part in this excursion, which began with a visit to the Red House Museum, where the excellent collection of insects of the late Dr. K. G. Blair, of Freshwater, was examined. There was much of interest to see in the museum, and also in the very attractive herb garden. After lunch the party walked to the Priory and spent some time in the historic and beautiful church. The leader then took the party to Stanpit Marshes, which it is hoped will be created a local nature reserve. Unfortunately, the rain during the previous night made it impossible to walk very far on to the marshes, but a number of interesting plants were observed.

#### **Fungus Foray and Exhibition 20th and 21st October, 1962.**

Members met at Havenstreet station on Saturday afternoon, 20th October, and, under the guidance of Mr. J. Russell, searched the nearby woods for fungi of different kinds. These were taken to the Unity Hall, Newport, where the collection was augmented by further specimens obtained in different parts of the Island.

On Sunday morning Mr. E. H. Ellis, of Guildford, assisted by the President, identified the specimens, which were arranged in classified order to form a striking display of over 100 named specimens, including one not previously recorded from the Island. The display was open to members during Sunday afternoon, when Mr. Ellis gave a stimulating talk on the specimens obtained. Mr. D. Roberts set up his microscope so that members could study the features of the spore-bearing structures.

---

**General Meeting** held on Saturday 10th November, 1962.

The President in the chair.

At this, a joint meeting with the British Trust for Ornithology, Mr. Edwin Cohen, the Trust's representative in south Hampshire, gave an introductory talk about the facilities that the Trust offers to members, and the varied activities in which they can participate.

The main purpose of the meeting was to discuss nest boxes, in which Mr. Cohen is an acknowledged expert, having written the standard guide on the subject. He has installed 107 boxes in his grounds at Sway, and has succeeded in attracting a variety of species to use them, for roosting as well as nesting. Members were keenly interested in a number of nest boxes of various types which he brought to the meeting, including some, made of a mixture of cement and sawdust, which are being used in preference to the traditional wooden ones.

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**Informal Meeting** held on Friday 23rd November, 1962.

Subject for discussion—Ornithology.

Mr. J. Stafford, the Bird Recorder, led the discussion. Records were compared and are embodied in the Bird Report.

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**General Meeting** held on Saturday 8th December, 1962.

The President in the chair.

There was a large attendance at an enjoyable and instructive lecture by Mr. Eric Kay, B.A., F.R.G.S., on the geology of the Isle of Wight coastline. The speaker said that the main physical feature of the Island is the range of downs running from west to east and forming the chalk cliffs at either end where they meet the sea, those at the western end having been continuous in prehistoric times with the chalk cliffs of Dorset. The inclination of the strata in this region indicates the enormous rock movements that must have occurred.

The south-west coast is most subject to erosion by the sea, as it is open to attack by waves from the Atlantic, which may have been built up by wind action over distances of several thousand miles. The effect of this erosion at Freshwater Bay was well illustrated by a series of

maps, which had been prepared at different dates over the last 150 years, and by a series of drawings and photographs of the Arch Rock.

Mr. Kay described the complicated form of the Undercliff. To understand how it came about, he said, one must also consider its various earlier configurations, particularly with reference to changes in sea level.

Mr. G. C. Dunning, F.S.A., commented on the archaeological and historical aspects of the coastline.

**Annual General Meeting** held on Saturday 19th January, 1963.

The President in the chair.

Despite the bad weather, 45 members were present. The retiring President thanked members for making his period of office such a pleasant one. The Secretary reported a membership increase during the year from 208 to 248, and the Treasurer stated that the financial position was satisfactory.

The meeting approved a proposal by Mr. R. Machin that the subjects of reptiles and mammals, entomology, geology, archaeology, and the seashore should be covered by special, informal groups of the Society so that a wide variety of interests could be encouraged.

Committee reports were given on field activities and junior activities (Mr. R. Machin), the Newtown Trust Fund (Mrs. I. Gaskin), conservation (the President, in the absence of Mr. S. T. Waite), and the *Proceedings*, library, and programme committee (Mr. O. H. Frazer).

It was reported that the Society, with other interested bodies, was to arrange competitions for schools in connection with two exhibitions to be held in Newport during the National Nature Week (18th to 25th May, 1963).

The Officers and Council, as shown elsewhere in these *Proceedings*, were elected. A vote of thanks and appreciation of the sterling work done by Mr. Frazer, the retiring President, was proposed by Mr. Machin and heartily endorsed by members.

In addition to the above meetings, regular Sunday morning walks for the observation of birds were organised at Newtown, along the Medina, at Bembridge, and at Yarmouth.

# REPORT ON THE INVESTIGATION OF A ROUND BARROW ON ARRETON DOWN, ISLE OF WIGHT.

## PART II: THE PRE-BARROW OCCUPATION.

By P. C. and A. OZANNE.

### THE FLINT INDUSTRY<sup>1</sup>

The interest of the flint assemblage lies firstly in its association with Peterborough ware and, secondly, in its size and completeness.

The material is a grey-brown flint with a patina varying from blue-grey to white.

No other stone than flint was utilised, save for a piece of haematite-rich mudstone of problematic geological origin, found in a disturbed part of the mound and apparently used as a grinder or rubber; alternatively, the mudstone is soft and when ground down would have provided a red pigment.<sup>2</sup>

The overall composition of the flint industry may be tabulated as follows:—

	<i>Number</i>	<i>Weight</i>
Cores	165	58lb. 4oz.
Flakes	12,892	251lb. 12½oz.
Forms with secondary working	311	16lb. 12½oz.
Fire-crackled flints	242	11lb. 12oz.
Total	13,610	338lb. 9oz.

In considering the industry attention is directed to its division into three samples obtained from different contexts, *viz.*: I from on or below the old ground surface; II from the undisturbed parts of the mound; III from superficial and disturbed strata of the mound.

#### TECHNIQUE OF PRODUCTION

##### (a) Cores

<i>Sample</i>	<i>No.</i>	<i>Weight</i>
I	25	8lb. 5oz.
II	88	32lb. 9oz.
III	52	17lb. 6oz.
Total	165	58lb. 4oz.

The smaller number of cores in relation to flakes in Sample III is perhaps due to the quarrying of the barrow for flint nodules in 1815.

<sup>1</sup> Thanks are due to Professor Clark, Mr. E. Higgs, and Mr. R. Inskeep for helpful suggestions, and to Miss M. O. Miller, who drew the flints.

<sup>2</sup> I am indebted to Dr. C. L. Forbes, of the Sedgwick Museum, for the identification and this useful suggestion.

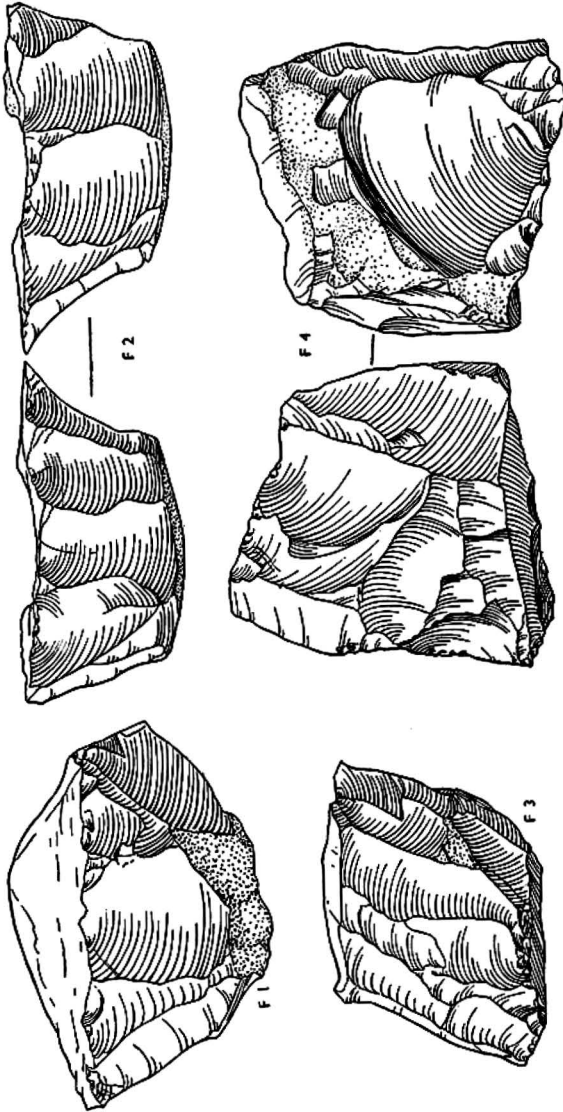


Fig. 8. Flint cores. ( $\frac{1}{2}$ )

Nine categories were distinguished :—

- A Single platform, struck part of the way round (fig. 8, F1).
- B Single platform, struck all the way round (fig. 8, F2).
- C Two platforms at right angles.
- D Two platforms at oblique angles.
- E Two parallel platforms (fig. 8, F3).
- F Three platforms (fig. 8, F4).
- G Six platforms.
- H " Chopper " cores.

There were also 16 cores (weighing 2lb. 8oz.), broken by frost and shattering, which could not be classified.

The chart shows the number of flakes struck from each type of core ; in counting the number of flakes only those detached from existing platforms were included ; flake surfaces struck from pre-existing platforms were frequent.

Type of Core	Number of flakes struck from existing platforms															Total
	1	2	3	4	5	6	7	8	9	10	11	13	14	15		
A	7	20	20	8	12	5	1		1							74
B										2					1	3
C		2	1	2	5	1	1	1								13
D		2	3	3	6	2	1	1								18
E				2							1					3
F				1		2	2	1				1	1			8
G											1					1
H		1	5	3	12	4	5	6	2	5		1		1		45
Total	7	25	29	19	35	14	10	9	3	7	2	2	1	2		165

*Chart showing the categories and flaking of cores.*

140 of the 165 cores retained areas of cortex. Striking platforms were as a general rule not cortical, but suitably flat thermal fractures or flake scars, occasionally showing faceting through the intersection of more than one scar. There is no regular preparation of a platform. The internal angle between the plane of the flake scar and the platform is usually acute.

The large number of sizeable pieces from which only one or two flakes have been struck, as opposed to the small number which have been used economically all the way round the platform (*e.g.*, F2) is noticeable ; on the other hand, unusually small thermally-fractured pieces were occasionally used. Small regular residual cores are rare except in the " chopper " class (H) ; small chopper cores are usual.

Twenty-six of the cores showed signs of utilisation<sup>1</sup> for scraping and/or chopping, less often for cutting or hammering. The typical sharp S-curved edge of the "chopper" class in particular made it a useful tool.

(b) *Core rejuvenation flakes.*

Sample I contained only 37 of these (2.22 per cent. of the sample), of which 13 were utilised. Rejuvenation flakes from all three samples included flakes slicing cores from top to bottom, flakes struck at an angle to a previous striking platform (often utilised), keeled flakes resulting from the trimming of chopper-type cores, and flakes removing the toes of cores.

The rarity of these flakes corroborates the evidence cited above for the general absence of persistent flaking of cores. They are included with the other flakes in the data of the next section.

(c) *Flakes without retouch.*

Sample	Number	Weight
I	1,667	28lb. 13 $\frac{3}{4}$ oz.
II	4,210	83lb. 4 $\frac{3}{4}$ oz.
III	7,015	139lb. 10oz.

The proportions of cortical to non-cortical flakes and of complete to broken were measured for the two smaller samples, which yielded figures not significantly different from each other.

The figures for Sample I were :—

	By number			By weight		
	Complete	Broken	Total	Complete	Broken	Total
Cortical	39.5%	9.0%	48.5%	57.7%	8.7%	66.4%
Non-cortical	37.7%	13.8%	51.5%	26.6%	7.0%	33.6%
Total	77.2%	22.8%	100.0%	84.3%	15.7%	100.0%

Figures are given on p. 293 f. for the lengths,<sup>2</sup> breadths and length/breadth indices of the unbroken flakes of Sample I, *i.e.*, 658 cortical flakes (weight 16lb. 10 $\frac{1}{2}$ oz.) and 628 non-cortical flakes (weight 7lb. 10 $\frac{3}{4}$ oz.). It was found, as we expected, that the cortical flakes are larger and broader than the non-cortical ones, but that the difference in the length/breadth indices is less pronounced. The large number of cortical flakes and their comparatively modest difference in size from the non-

<sup>1</sup> The distinction between some of the cores utilised for scraping and the tools described as thermal-flake scrapers is a convenience only, since in some cases it is impossible to tell whether the core or the flakes were the by-product.

<sup>2</sup> "Length" was measured as the greatest dimension at right angles to the striking platform, "Breadth" as the greatest dimension parallel to the platform.

cortical ones show that small nodules of flint were used, and suggests, again, that persistent knapping of a regular core was not the rule.

The general characteristics of the measurements may be summarised :

Length :	70.5%	were between	0.8"	and	2.0"	long ;
	42.0%	"	"	1.0"	and	1.6"
Breadth :	71.3%	"	"	0.6"	and	1.4"
	40.7%	"	"	0.8"	and	1.2"

Length/breadth index : Few flakes approximated to blades ; only 1.3% were three or more times as long as they were broad.

(d) *Utilised flakes.*

1498 or 11.6 per cent. of the 12,892 primary and core-rejuvenation flakes showed signs of utilisation ; 5.8 per cent. were cortical and 5.8 per cent. non-cortical, 9.2 per cent. complete, and 2.4 per cent. broken.

Types include long narrow flakes and broad scraper-like forms. Figures are given below for the lengths, breadths, and length/breadth indices of the unbroken utilised flakes from the three samples, *viz.*, 641 cortical flakes (weight 26lb.10oz.) and 541 non-cortical flakes (weight 15lb.15¼oz.). On the average the utilised flakes are longer and wider and have a larger length/breadth index (*i.e.*, are more "blade-like") than the non-utilised ones.

It was further noted that, as can be seen in the tables, all the unbroken flake-tools which retain more or less the shape of the original flake—99 scrapers, 69 notched flakes, and 28 others—were on the average, longer, broader, and more blade-like than the utilised flakes, even when no allowance is made for the length and breadth lost through the retouch itself.

Inches Mid-Mark	Sample I Flakes						All Samples					
	Cortical		Non-cortical		Total		Utilised Flakes		Tools		Scrapers alone	
	L	B	L	B	L	B	L	B	L	B	L	B
0.15	—	—	—	—	—	—	—	—	—	—	—	—
0.25	—	—	—	6	—	6	—	—	—	—	—	—
0.35	1	4	3	13	4	17	—	—	—	—	—	—
0.45	3	18	9	27	12	45	—	3	—	—	—	—
0.55	4	27	21	40	25	67	—	8	—	5	—	—
0.65	11	31	40	60	51	91	3	31	—	1	—	1
0.75	18	55	36	73	54	128	1	38	1	5	—	2
0.85	27	59	56	68	83	127	6	75	—	9	—	4
0.95	37	69	54	74	91	143	11	119	2	21	2	7
1.05	42	61	58	75	100	136	24	152	3	14	3	10
1.15	49	76	61	39	110	115	44	103	1	17	1	7
1.25	51	47	55	32	106	79	59	113	10	20	6	7
1.35	55	40	51	37	106	77	81	102	8	23	4	12
1.45	46	42	40	23	86	65	94	94	10	15	5	12
1.55	40	27	41	14	81	41	93	62	13	15	6	8
1.65	52	21	20	13	72	34	119	61	13	15	7	7
1.75	42	18	22	8	64	26	102	56	21	4	11	3
1.85	33	16	18	7	51	23	96	42	9	9	2	6
1.95	32	13	11	6	43	19	82	43	15	6	5	4
2.05	21	10	12	4	33	14	79	23	11	4	4	1
2.15	18	4	6	1	24	5	45	12	16	4	9	3
2.25	20	6	—	1	20	7	58	12	15	—	7	—
2.35	16	3	4	1	20	4	42	8	11	1	8	—
2.45	9	1	1	—	10	1	35	8	12	3	7	1
2.55	6	1	3	—	9	1	29	5	7	1	1	1
2.65	6	2	—	—	6	2	23	—	2	—	1	—
2.75	5	—	—	—	5	—	12	4	3	1	2	1
2.85	2	—	—	—	2	—	10	1	4	1	2	1
2.95	3	1	—	—	3	1	5	2	4	1	2	—
3.05	—	—	—	—	—	—	8	3	2	—	2	—
3.15	1	—	—	—	1	—	6	1	1	—	—	—
3.25	—	—	—	—	—	—	3	—	1	—	1	—
3.35	1	—	—	—	1	—	7	—	2	1	1	1
3.45	—	—	—	—	—	—	1	1	—	—	—	—
3.55	—	—	—	—	—	—	2	—	—	—	—	—
3.65	1	—	—	—	1	—	1	—	—	—	—	—
3.75	—	—	—	—	—	—	—	—	—	—	—	—
3.85	—	—	—	—	—	—	—	—	—	—	—	—
3.95	—	—	—	—	—	—	1	—	—	—	—	—

*Measurement Data of the flint industry*

Inches Mid-Mark	<i>Sample I Flakes</i>		<i>All Samples</i>		
	Cortical	Non-cortical	Utilised Flakes	Tools	Scrapers alone
0.25	—	—	—	—	—
0.35	1	1	1	—	—
0.45	1	4	1	—	—
0.55	12	16	6	2	1
0.65	20	35	18	2	1
0.75	26	39	21	3	1
0.85	28	44	56	6	3
0.95	48	47	81	11	7
1.05	68	60	97	12	7
1.15	52	55	113	14	10
1.25	47	36	75	15	7
1.35	51	55	113	20	10
1.45	46	31	100	19	11
1.55	43	32	78	18	9
1.65	49	25	78	17	11
1.75	26	31	55	12	5
1.85	32	25	64	13	8
1.95	20	14	57	6	3
2.05	15	10	39	4	1
2.15	26	21	27	2	—
2.25	10	11	18	4	—
2.35	7	9	23	4	2
2.45	6	5	15	3	1
2.55	5	3	11	3	1
2.65	4	1	6	—	—
2.75	3	4	10	—	—
2.85	4	1	3	1	—
2.95	2	—	6	1	—
3.05	—	2	5	—	—
3.15	—	—	1	—	—
3.25	—	3	1	1	—
3.35	—	2	1	1	—
3.45	—	—	2	1	—
3.55	—	—	1	1	—

*Length/Breadth Index Data*

## TOOLS

The list of tools indicates the homogeneity of the industry in the three strata.

	<i>Sample</i>			<i>Total</i>
	I	II	III	
1. Arrowheads				
(a) Petit tranchet derivative	3	7	9	19
(b) Leaf (doubtful specimen)	—	1	—	1
(c) Barbed and tanged	—	—	1	1
2. Scrapers				
(a) On struck flakes	20	36	66	122
(b) On thermal flakes	5	2	4	11
3. Notched flakes	10	34	42	86
4. Bifacially worked core-tools				
(a) Convex on both surfaces	1	1	5	7
(b) Flat on one surface	—	1	3	4
5. Piercers and awls	—	7	10	17
6. Grooving tools	2	—	1	3
7. Saws	1	—	2	3
8. "Fabricator"	—	1	—	1
9. Discoidal knife	—	—	1	1
10. Axes	1	1	1	3
11. Waisted core-tools	—	—	2	2
12. Chopper	—	—	1	1
13. Other trimmed pieces	5	8	15	28
14. Flake from a polished implement	—	—	1	1
Totals	48	99	164	311

(a) *Arrowheads*. Nine of the 19 petit tranchet derivative arrowheads are complete, the rest broken or unfinished. The forms represented are: Four of Professor Clark's<sup>1</sup> Type B (F 5, 6); five of Type C1 (F 7-9); eight of Type D (F 10-11), and one of Type E (F 12).

The leaf arrowhead (F 13) is a doubtful or unfinished specimen. A fragmentary barbed and tanged arrowhead (F 14) was found near the Dagger Cremation, but in a disturbed context, and it is therefore entirely uncertain whether or not it is a part of the industry here described.

(b) (i) *Scrapers: on struck flakes* (F 15-21). Of the 122 examples, 23 are broken. Seventy-nine retain patches of cortex. Many of the pieces show less retouch than those selected for illustration, and on some the secondary working is so irregular as to be distinguishable only with difficulty from utilisation scars. The patina of the flake scars of two scrapers indicates two distinct periods of working, and the same is suspected in the case of a few others.

(ii) *Scrapers: on thermal flakes*. Eleven irregularly shaped flakes, eight of them cortical, have been roughly trimmed as scraping or skinning tools.

(c) *Notched flakes and blades* (F 22-24).

Forty-seven of the 86 examples show areas of cortex. Seventeen are broken. The secondary working of each notch is invariably unifacial, but cases occur in which two notches on one flake have been worked from opposite faces. Some pieces are clearly notched for hafting (F 22-23). The patina on several suggests two distinct periods of working.

(d) *Piercers and awls*. There are 13 uniaxially worked piercers (F 25) and four true awls flaked from alternate faces (F 26).

(e) *Possible grooving tools*. There are three points like F 27, which have no true burin facet but may have served as graving tools.

(f) *Saws*. An important feature of this industry is the virtual absence of serrated flakes (F 31-32), a type represented by three poor specimens only, which are all broken.

(g) "*Fabricator*" A bifacially worked tool (F 29) with oval section, one end worked to a point suitable for graving and the other showing the bruising typical of "fabricators." The bruised end retains a very small area of polish (indicated in the illustration by an arrow) suggesting that the tool has been trimmed down from a ground stone implement of similar shape, probably a narrow chisel.

(h) *Discoidal knife*. This is a thermally-fractured flake with bifacial working (F 30). There is no polish on either surface. The tool may be unfinished, but battering along the edges suggests that it has been used.

<sup>1</sup> *Arch. J.*, xci, 32 ff.

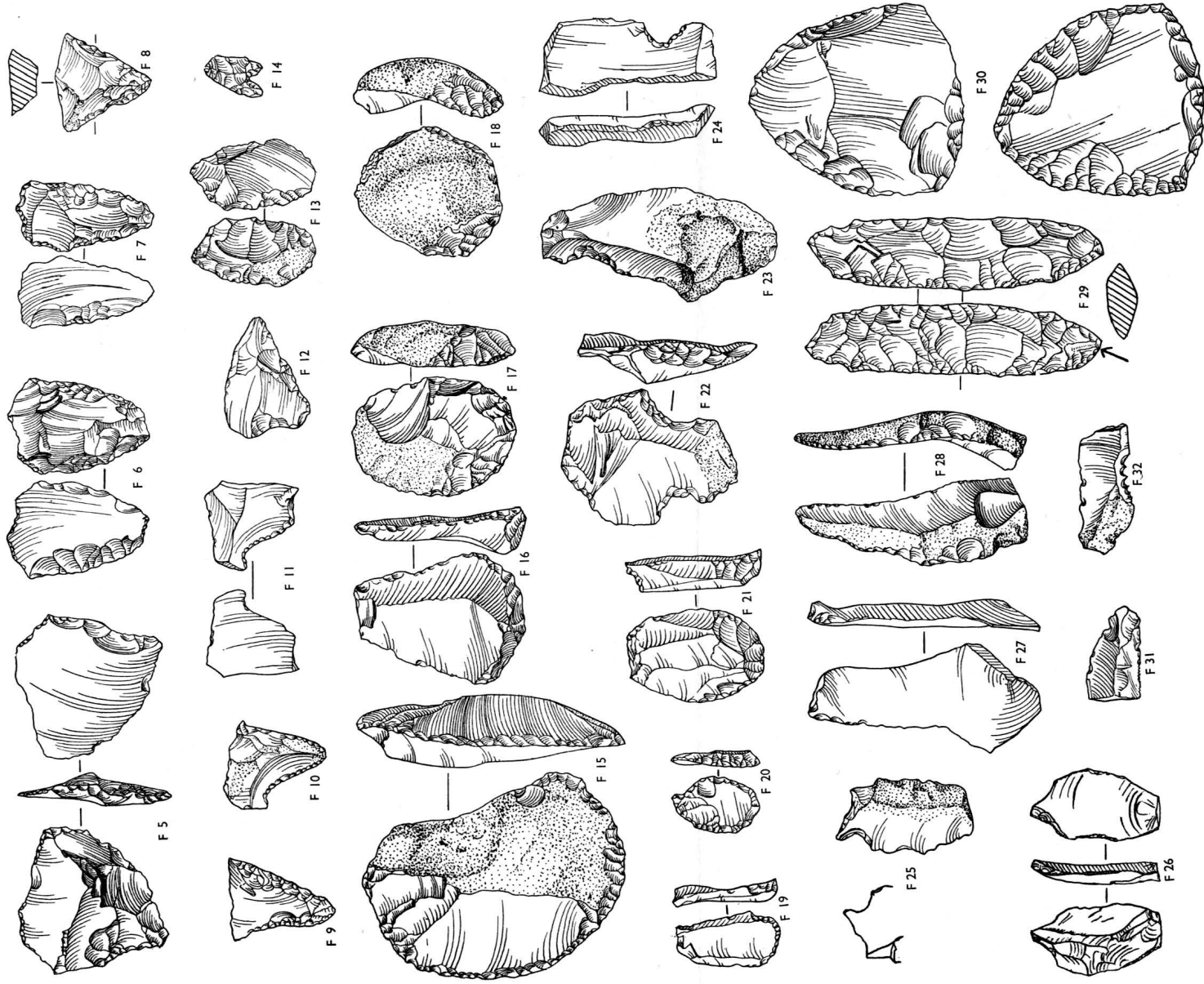


Fig. 9. The flint tools. (½)

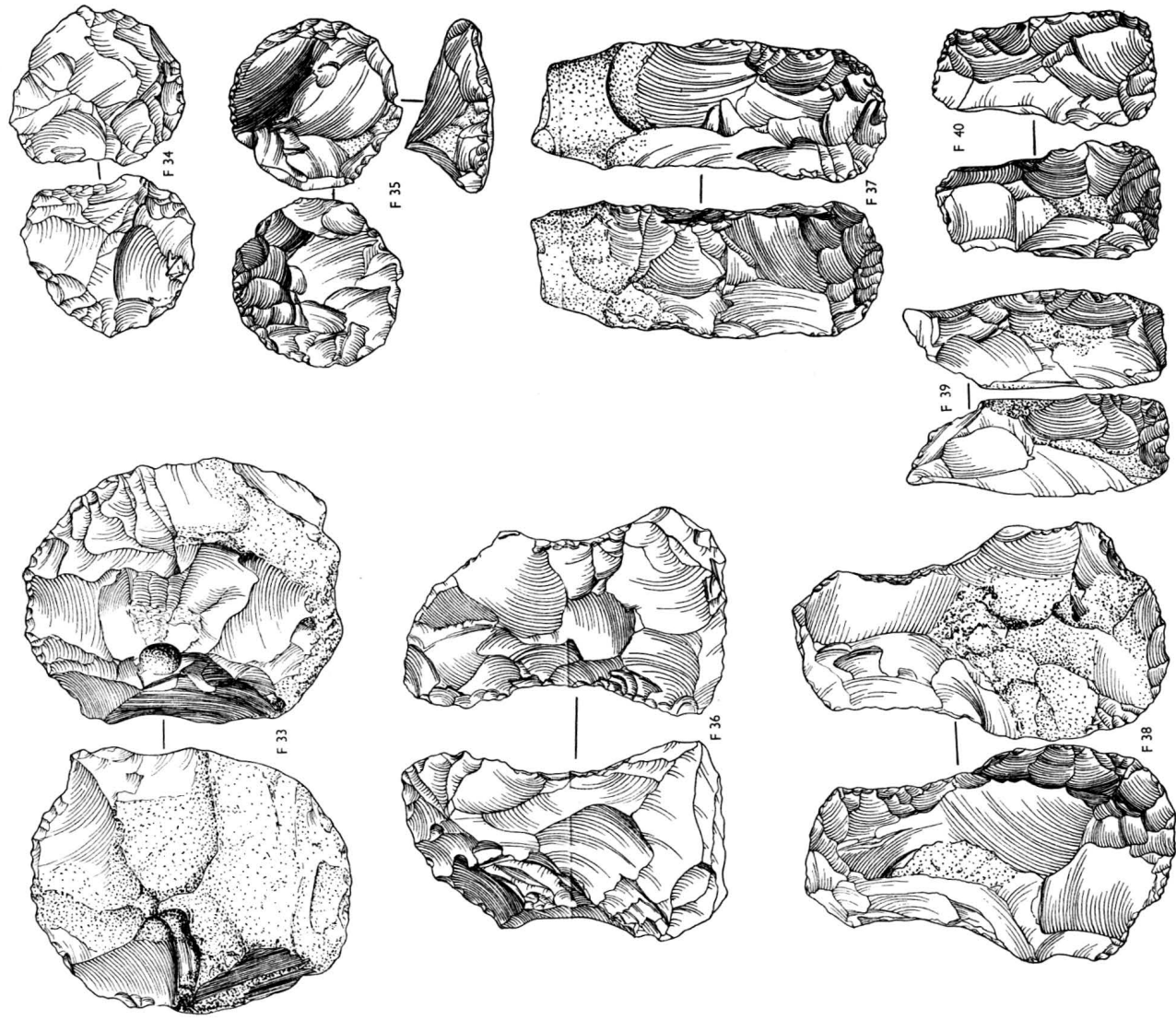


Fig. 10. The flint tools, continued. (½)

(i) *Axes*. The three axes are small adze-like core-tools (F 37, 39, 40). The fine specimen F 37 is from the buried soil. Trimming for the cutting edge of F 39 has included a tranchet blow to remove the cortex.

(j) *Waisted core tools*. The waisting of these tools (F 36, 38) is typical of core-tools from Stourpaine, Dorset, and from the surface site near Stonehenge. It may well be a characteristic secondary Neolithic trait.

(k) *Chopper*. A cortical nodule with bifacial retouch to make an S-curved chopping edge (F 33).

(l) *Bifacially worked core-tools*.<sup>1</sup> These objects are of irregular form, but for the most part more or less circular in outline with a thickness one half or more of the maximum breadth. They have been flaked to produce an S-curved chopper-type edge, but show no definite signs of utilisation. They are not cores. Their purpose is by no means certain, but they may have been used as scrapers or choppers.

(i) Convex on both surfaces (F 34).

These include the only discoidal example, with thin section. An unfinished example retaining an area of cortex suggests that the type was made out of quite small flint pebbles.

(ii) Flat on one surface, convex on the other (F 35).

(m) *Miscellaneous*. Other trimmed pieces include two flakes with shallow unifacial retouch at one end, possibly wood-working tools for fine planing, and several backed knives (F 28).

## DISCUSSION

The flint assemblage from the barrow, clearly Late Neolithic by reason of its content and through its association with Late Peterborough pottery, comprises probably the largest collection of published flints of this period in Britain which have been obtained through excavation.<sup>2</sup> It includes the axes of Professor Piggott's "heavy flint industry," "known in Britain almost exclusively from surface finds," associated, as has so rarely been the case hitherto, with several types of his "light flint industry."<sup>3</sup>

The assemblage corroborates much of what has been written of the repertoire of Late Neolithic flint tools. The direct association of petit tranchet derivative arrowheads with Peterborough pottery is new and welcome. Their association with scrapers, piercers, awls, a "fabricator,"<sup>4</sup> and a discoidal knife is what might have been expected. Waisted

<sup>1</sup> Parallels to these have figured as "ovates" in the older publications, cf. *WAM*, XLVIII, 156, pl. iv.

<sup>2</sup> Surface finds from Arreton Down in the Carisbrooke Museum include a leaf-shaped arrowhead (*PIWNHAS*, III, Pt. II, 126) and a small collection of two scrapers, an axe, and utilised flakes.

<sup>3</sup> *Neolithic Cultures of the British Isles*, 282 ff.

<sup>4</sup> The Arreton "fabricator" is precisely matched by a tool from a Neolithic A context at Maiden Castle; cf. *Maiden Castle*, fig. 40, no. 19.

axes and planes like our F 36, 38, have been noted as typical of the secondary neolithic in Dorset and Wiltshire, and occur also at Cissbury in Sussex.<sup>1</sup>

At the same time a number of types listed by Piggott as characteristic of the secondary Neolithic flint industries are at Arreton conspicuous by their scarcity or absence. The site produces no igneous axes from factory sites (although such axes are known from other sites in the Island and are common on the Dorset coast near the Christchurch entry), no ground flint axes and indeed no ground flint at all except for a single flake from a ground tool and the small patch of polish on the "fabricator." Blade knives and scrapers with polished edges, noticed at some Late Neolithic sites, do not occur here. Whether or not the absence of ground tools in an assemblage of this size is significant is a moot point. Serrated flakes also are notably rare.

In spite of the presence of a Beaker sherd beneath the old ground surface and of a fragmentary barbed and tanged arrowhead in a disturbed level, there is an interesting scarcity of flint types usually associated with Beakers.

Notched flakes and bifacially worked core-tools like F 34 and 35 are types well known to collectors, but do not figure in Piggott's list of well-dated secondary Neolithic forms. Their distribution and dating are therefore considered here in some detail.

In the Isle of Wight such bifacially worked core-tools are known from "mesolithic" sites (*i.e.*, for present purposes, sites yielding microliths) east of the Newtown estuary<sup>2</sup> and at Ninham, the latter producing a core-tool with bifacial retouch of the type with flat under-surface. They also occur at two surface sites near Sandown which yield both microliths and petit tranchet derivative arrowheads, Lea Farm (type with two convex surfaces), and Blackpan (two bifacially worked core-tools, one oval and keeled, one round, each with flat under-surface.) Another example, with retouch on its flat under surface and probably used as a scraper, was recovered from the mound of a round barrow on Headon Hill, together with a ground-edged chisel, a "knife," and "steep-nosed" and other scrapers; it is not clear why Poole suggested a Middle Bronze Age date for them.<sup>3</sup>

On the mainland clear parallels to these tools are noted in Mesolithic contexts at Kimble, Bucks,<sup>4</sup> and Lower Halstow, Kent.<sup>5</sup> Among Neolithic sites Grimes Graves,<sup>\*6</sup> notoriously, has produced bifacially

<sup>1</sup> Piggott, *op. cit.*, 280, fig. 4. *Archaeologia*, LXIII, 153, figs. 38, 39. *WAM*, XLVIII, 150 ff.

<sup>2</sup> *PIWNHAS*, II, Pt. VII, pl. iv, 37. <sup>3</sup> *PIWNHAS*, II, Pt. III, 191, pl. i, 2.

<sup>4</sup> *PPSEA*, II, 446.

<sup>5</sup> *Ibid.*, v, 220, nos. 5, 8, 12; 290, no. 6.

\* Flints in the University Museum of Archaeology and Ethnology, Cambridge, quoted by kind permission of the Curator.

<sup>6</sup> *Grimes Graves Report*, figs. 28, 34; *Archaeologia*, LXIII, 113, figs. 1, 2; *PPSEA*, I, 423; II, 278, fig. 44B, 288, 299, 300, fig. 57C, D. 413 and 417, fig. 83H; III, 75 ff., fig. 13 E, F, G, fig. 15H, I and fig. 17C; IV, 198, figs. 5, 6; V, 106, fig. 3b and 120, fig. 10.

worked core-tools ranging from large pointed specimens like hand-axes, through round "ovates" and "discs" with S-curved chopper edges like the Arreton pieces, to flatter tools like round knives. Other Neolithic sites which yield core-tools more or less similar to ours include Cranwich,<sup>1</sup> Great Melton,<sup>2</sup> Icklingham,<sup>3</sup> and Thetford<sup>4</sup> in East Anglia, Whitehawk,<sup>5</sup> Cissbury,<sup>6</sup> Stoke Down,<sup>7</sup> Blackpatch,<sup>8</sup> and Harrow Hill<sup>9</sup> in Sussex, Lion Point<sup>10</sup> in Essex ("discs," flatter than the Arreton type, with grooved ware and petit tranchet derivative arrowheads), Windmill Hill\* (both types with flat and convex under-surfaces), Avebury\* (the type with two convex surfaces), the surface site near Stonehenge,<sup>11</sup> Woodlands, Amesbury,<sup>12</sup> and Easton Down<sup>13</sup> in Wiltshire, Hembury,<sup>14</sup> Haldon,<sup>15</sup> Mutter's Moor, Sidmouth,<sup>16</sup> and Beer\*<sup>17</sup> in Devon, Charterhouse Farm, Mendip,\* Stourbridge, Worcs,\* and Rudstone,\* Yorks.

Hollow scrapers or notched flakes are well known from Mesolithic contexts, as was noted in the publication of Abinger, where "the hollow scrapers in the assemblage are notable for the wide range of the size of the notch forming the working edge."<sup>18</sup> Apart from small ones associated with microlith production, notched flakes are known from Mesolithic sites in the Island, including the cliff faces west of Chilton and between Chilton and Brighstone, at Great Pan Farm, Shide (three single-notched flakes, two flakes double-notched for hafting), the site east of the Newtown estuary, Compton, Mottistone, Batts (Shanklin), and Ninham (a flake double-notched for hafting). They also occur at surface sites which yield petit tranchet derivative arrowheads in addition to microliths and true petit tranchet arrowheads, at Lea Farm near Sandown (including one double-notched for hafting), Black Pan Farm near Sandown (including one double notched), at a site west of Sandown Station, at Black Pan Common and at Yaverland. Further examples are known from an excavated round barrow at Niton,<sup>19</sup> from the ploughed barrow at Rowborough Farm, and from sites at Bembridge, Hillyards (Shanklin), Lake, Atherfield, "Shanklin," and "near Newport."

<sup>1</sup> *PPSEA*, I, 455, pl. cxvi.

<sup>2</sup> *Ibid.*, II, 378, fig. 75E.

<sup>3</sup> *PPSEA*, I, pl. lxxiii, 1, 2.

<sup>4</sup> *Ibid.*, II, pl. xii, b.

<sup>5</sup> *Ant. J.*, XIV, 123, fig. 82; *SAC*, LXXI, 73, pl. xii, 3.

<sup>6</sup> *PPSEA*, I, pl. lxxiii, 4, 5; *Archaeologia*, XLII, pl. viii, 10, 11.

<sup>7</sup> *PPSEA*, IV, 88f.

<sup>8</sup> *SAC*, LXV, 84, 2 (large).

<sup>9</sup> *Ibid.*, LXVII, 131, 16.

<sup>10</sup> *PPSEA*, III, 99 f; *PPS*, II, 181.

<sup>11</sup> *WAM*, XLVIII, 156, pl. iv, 52-4, 56, 58.

<sup>12</sup> *Ibid.*, LII, 298, fig. 6, 15, 16.

<sup>13</sup> *Ibid.*, XLV, 359, fig. 22.

<sup>14</sup> *Proc. Devon Arch. Expl. Soc.*, 1930, pl. xxx, 126 (flat undersurface); 1931, pl. xxxii, 214; 1935, pl. xl, 1307.

<sup>15</sup> *Ibid.* 1936, pl. lxiv, 3; pl. lxv, 6, 7.

<sup>16</sup> *Ibid.* 1951, pl. xxxiv.

<sup>17</sup> *Ibid.* 1930, 12.

<sup>18</sup> *Surrey Arch. Soc. Research Paper*, 3, 32 and fig. 8, 1, 3.

<sup>19</sup> Barrow 2 at Niton, which yielded Neolithic A and B and Beaker potsherds associated with flint scrapers, cores, and flakes. The absence of more distinctive flint types is disappointing. *PIWNHAS*, II, Pt. III, 196.

Mainland Neolithic sites yielding similar notched flakes include Grimes Graves,<sup>1</sup> Risby, Suffolk,<sup>2</sup> Whiteleaf, Bucks,<sup>3</sup> Blackpatch, Sussex,<sup>4</sup> Sutton Courtenay, Berks,<sup>5</sup> Michelmersh, Hants,<sup>6</sup> Easton Down, Wilts,<sup>7</sup> Maiden Castle, Dorset,<sup>8</sup> and Hembury, Devon,<sup>9</sup> to name only one site from each county.

The above evidence for the Mesolithic origin and widespread distribution in Neolithic contexts of both the bifacially worked core-tools and the notched flakes seems conclusive, in spite of the fact that many of the finds are from surface collections. Their occurrence in purely Mesolithic contexts (*e.g.*, Great Pan Farm) and their survival into Late Neolithic times demonstrable at Arreton adds new weight to the theory of a substantial continuing Mesolithic tradition.

The best parallel to the Arreton Down assemblage as a whole within the Isle of Wight is undoubtedly the material from Redcliff, north-east of Sandown. Over a large number of years flints have been obtained from the eroding cliff section at this site, and a large and interesting collection has found its way into the Carisbrooke Museum. Some of the material was described as Neolithic in 1927 by H. F. Poole,<sup>10</sup> who suggested in 1937<sup>11</sup> that the site "appears to represent a flint industry covering the last phases of the Mesolithic and developing into the Early Neolithic." Apart from its microliths and typically Mesolithic cores, the Redcliff flints are all represented at Arreton; they include a fine series of petit tranchet derivative arrowheads, picks, celts, scrapers, retouched knives, choppers, piercers, awls, and notched flakes. One notched flake in the Carisbrooke Museum has three notches, two of which are adjacent and worked from opposite faces, a Mesolithic technique noted also at Arreton. There are also a few bifacially worked core-tools (Poole's "tortoise-cores") which come close to our F 34 and 35.

The few potsherds from Redcliff have been regarded as belonging to the Windmill Hill group<sup>12</sup>; a re-assessment of their character is due, since the flints, at least, suggest a Late Neolithic date. The writers believe that the one rim is of an Ebbsfleet form and decoration, although the fabric is more like Mortlake ware.

Outside the Isle of Wight there are numerous published analogies for our types, notably from the flint mines and from surface collections. Late Neolithic material recovered from barrows (such as Bishop's Waltham<sup>13</sup>) affords far fewer striking parallels, no doubt because the assemblages are smaller. The most noticeably similar site is the surface

<sup>1</sup> *PPSEA*, II, 421, fig. 85F, 424; v, 131, figs. 24, 25.

<sup>2</sup> *Ibid.*, III, 69.

<sup>3</sup> *PPS*, xx, 218, fig. 4, no. 5.

<sup>4</sup> *SAC*, LXV, 85.

<sup>5</sup> *Ant. J.*, XIV, pl. xxviii g.

<sup>6</sup> *Ant. J.*, XIV, 251, fig. 3, no. 2.

<sup>7</sup> *WAM*, XLV, 350 ff., figs. 28, 32.

<sup>8</sup> *Maiden Castle*, fig. 45, 94, 95 (two scrapers notched for binding, from Neolithic B levels).

<sup>9</sup> *Proc. Devon Arch. Expl. Soc.*, 1932, pl. xxi, 1047.

<sup>10</sup> *Proc. Hants Field Club and Arch. Soc.*, x, Pt. I, 25 ff.

<sup>11</sup> *PIWNHAS*, II, Pt. VII, 578.

<sup>12</sup> *Arch. J.*, LXXXVIII, 141.

<sup>13</sup> *PPS*, xxiii, 154 ff.

site near Stonehenge,<sup>1</sup> where the arrowheads are exclusively of the petit tranchet derivative type, and are associated with waisted axes and bifacially worked core-tools ("ovates"); there is much discarding of hardly-used cores, the use of cores for chopping and scraping, and the minimum use of secondary work on some of the scrapers with the retention of much cortex; all these are typical features of the Arreton industry.

### PART III: THE EARLY BRONZE AGE IN THE ISLE OF WIGHT

By JOHN ALEXANDER.

In conclusion, it seems appropriate to attempt to set the Arreton Down settlement and barrow among the contemporary sites from the Island.

There is evidence for a considerable Island population at this period and it is possible that three cultural traditions were interwoven or even flourished side by side. The first of these may be described as Secondary Neolithic on the basis of its burial traditions, its pottery, and its flint work. Eight sites<sup>2</sup> and a number of stray finds belong here and are scattered over the chalklands of the Island. Two of the settlement sites are stratified in and under round barrows. At Niton<sup>3</sup> one preceded the unaccompanied burial of a brachycephalic male, probably of Early Bronze Age date, and at Arreton Down one preceded burials of Early Bronze Age date. An unstratified site at Blackpan Common is generally similar. The distribution of ground stone axes is similar to that of the sites<sup>4</sup> and they might well be of similar date. Several of the axes come from the south-west of Britain<sup>5</sup> and show the Island to have shared in the Channel trade in axes. Among several round barrows, the Devil's Punch Bowl<sup>6</sup> is the most important, for its inhumation with an antler hammer and central cairn is best paralleled in the mainland Late Neolithic Cultures. The Arreton Down barrow also has Neolithic features, and its best parallels are in West Britain and Holland. Three other inhumations might belong here.<sup>7</sup> Piggott has stressed the chronological overlap of the Late Neolithic and Wessex Cultures<sup>8</sup> and the Arreton Down barrow supports him.

The second tradition is represented by beakers and by certain types of barbed and tanged flint arrow-heads. Nine beakers have been studied by Dunning.<sup>9</sup> He considered them of Abercrombie's "A" type and they have a distribution apparently based on coastal settlement. At Arreton Down a few "B" beaker sherds were found, the

<sup>1</sup> *WAM*, XLVIII, 150.

<sup>2</sup> Niton, Arreton Down, Lea Farm, Blackpan Common, Nunwell Down, Sandown (two sites), Brading.

<sup>3</sup> *PIWNHAS*, II, 197-8.

<sup>4</sup> *PIWNHAS*, II, 36.

<sup>5</sup> Unpublished information in the Carisbrooke Castle Museum kindly supplied by Mr. J. Jones, the curator.

<sup>6</sup> *PBA*, XXXV (1888), I.

<sup>7</sup> *PIWNHAS*, III, 181.

<sup>8</sup> *Neolithic Cultures*, 363.

<sup>9</sup> *PIWNHAS*, II, 292.

first from the Island. The distribution of barbed and tanged flint arrowheads corresponds to that of the beakers and emphasises the settlement of the gravels at the eastern end of the Island.<sup>1</sup> The perforated axehammer from Chale should belong here.<sup>2</sup> On the nearby mainland "A" beakers are, like the Dorchester Culture, in part contemporary with the Wessex Culture.<sup>3</sup>

The third tradition is that of the Wessex Culture, and 24 Island barrows and hoards seem to show its influence. Their distribution covers that of the other two groups. The Arreton Down barrow has the best evidence in its faience bead and Wessex type dagger, but the now lost Shalcombe Down group<sup>4</sup> was of similar type. The tradition is also represented by four unexcavated bell-barrows and one saucer-barrow<sup>5</sup> and, less certainly, 15 other barrows with cremations and bronze daggers<sup>6</sup> of which little is known; and no doubt by some of the other 140 round barrows on the Island.

Two hoards of "Wessex" objects come from the central ridge of the Island. That on Arreton Down, not far from the barrow, has recently been republished and its mainland Wessex connections stressed.<sup>7</sup> It did, however, contain a Hiberno-Scottish axe and tanged and feruled spears which are found mainly in Western Britain. The second hoard, from Moon's Hill, Totland, is a contemporary of the Arreton hoard and likewise included a Hiberno-Scottish axe.<sup>8</sup>

From this evidence it seems likely that the Island was well settled at the time of the later Wessex Culture by groups in which Secondary Neolithic, Beaker, and perhaps mainland Wessex elements might be found. Some groups like that of Arreton Down may have kept much of their Neolithic inheritance.

A problem worth further study is the overseas connections of the Island at this time. Late Neolithic connections with the west of England are shown by the ground stone axes and possibly the Arreton Down barrow ritual. The axes and possibly the tanged spears with two hoards show that that contact was maintained into Late Wessex times. Throughout the same period contact with the Rhineland and perhaps Central Europe seems likely. Two bowls considered to be Late Neolithic<sup>9</sup> find their best parallels in the Rhineland and are unlike anything in England. The whole group of "A" beakers might be the result of a movement westwards along the Channel from that region for they are rare on the nearby mainland where a recent study has suggested that the mainland examples came from the Island.<sup>10</sup> A number of

<sup>1</sup> *PIWNHAS*, III, 36.

<sup>2</sup> *PIWNHAS*, II, 36.

<sup>3</sup> *Neolithic Cultures*, 380.

<sup>4</sup> The objects in the Carisbrooke Castle Museum attributed to this barrow are from Arreton Down. Drawings of the proper group are in the Dennet MSS.

<sup>5</sup> *PIWNHAS*, III, 179.

<sup>6</sup> *PIWNHAS*, III, 181-2.

<sup>7</sup> *Ant. J.*, XXVII, 177.

<sup>8</sup> *Ant. J.*, XXII, 198.

<sup>9</sup> Atton and Nunwell (*Man* 13 (1913), no. 12 and *PIWNHAS*, III, 295).

<sup>10</sup> *Hampshire F.C.*, x, 42. The Sussex beakers would fit into a movement of this sort.

objects of Wessex type might also be traced to the continent. The Arreton Down barrow bronze knife with five rivets is better paralleled there than in Britain; the bone belthook with it is as much like those found in the Perjámos Culture as in England; but most significant is the socketed spearhead with rivet from the Arreton Down hoard. The unique construction of this spearhead seems to have been overlooked. The shape of its blade relates it to the tanged spears of the Highland Zone while the rivet fixing it to the haft links it with Central Europe. It is most likely to be a modification of the Highland Zone type under Central European influence.<sup>1</sup> The faience bead of the Arreton Down burial might also have come *via* Central Europe rather than the Atlantic, while the stake circles of the barrow have their best parallels in Holland. Rhineland connections may also have been maintained in the succeeding Middle Bronze Age. Another hoard from Arreton, this time from the foot of the ridge<sup>2</sup>, was of palstaves of which only one has survived. This is unlooped and belongs to the early low-flanged type. The sketch of an urn from Newport<sup>3</sup> suggests the Hilversum urns of the Dutch Middle Bronze Age. It seems likely that the Island shared in the connections with Central and Northern Europe demonstrated by M. A. Smith (*op. cit.*, p. 181).

It is likely that the Isle of Wight was an important station on the Channel route in the Early and Middle Bronze Age and that its connections were with Western Britain, the Low Countries, and North-west Germany, and perhaps even Hungary.

#### APPENDIX I: HUMAN BONES

Human skeletal material from within and beneath the mound comprised an undisturbed inhumation, and undisturbed cremation, and disturbed inhumations and cremations. In this appendix bracketed numbers refer to find-spots.

The primary inhumation (1) had been disturbed. In the excavation of the grave-pit five levels, A—E, were observed. On inspection, virtually all the bones from all these layers proved to belong to one female skeleton, aged 30-40 and about 5 feet 1 inch high. In addition, the pit yielded a small fragment of frontal bone from another individual (2).

During the course of the building of the mound the body of a young girl (3) was buried in it. She was laid on her right side in a flexed position, with her left hand by her hip; she lay on her right humerus, and the right fore-arm spread across her back from her left side. This fore-arm was mutilated before burial, for the radius and ulna, although

<sup>1</sup> This is presumably included by M. A. Smith among the "experimental renderings of the Trassem-Lanquaid spear" (*PPS*, xxv, 165).

<sup>2</sup> Hillier, *History and Antiquities of the Isle of Wight*, 6.

<sup>3</sup> Hillier, *loc. cit.*, and also two sherds from Arreton.

they were apparently still articulated with the humerus when she was buried, were found to be lying at an angle of about  $100^\circ$  to each other, the radius extending up to the top of the shoulder-blade, and the ulna down to the hip (pl. XXVIII, b). The right hand was found in fragments in the angle thus formed, near the elbow; but as it lay on the left ribs it may have been in one piece when buried, disintegrating as the ribs collapsed.

The only other certainly human bones incorporated in the undisturbed barrow were isolated fragments from the west side (4-7).

The remains next in date of deposition were cremations. Cremated bones, probably those of a man, were found in four spots in the south-east quadrant. Two were undisturbed small heaps associated with the dagger (8, 9) and two more groups of fragments came from the disturbed ditch-fill 3 feet from the cliff edge in rabbit runs (10, 11). In addition, there were further fragments of cremated bones from other spots (12-14, 36) in disturbed strata near the old ground surface, also in the south-east quadrant of the barrow. Of the identifiably human pieces some (12-14) were possibly, but not certainly, from the same individual as at find-spots (8-11); but (13, 14) included, with the cremated fragments, two unburnt bones of a small child. The skull fragment from (36) might well represent a separate disturbed cremation.

The remaining recognisably human bones, all unburnt, were from disturbed and surface levels, notably from the large robber-pit in the south-east quadrant (15-24). In this pit the bones of several individuals found piled together indiscriminately in heaps (*e.g.* (15, 16)) are likely to have been Saxon remains disturbed by the labourers of the Turnpike Commission in 1815, carelessly collected and reburied, as is known to have been done at the neighbouring barrow at the same time.\* Lastly, there were smaller groups of bones from other areas which had been disturbed probably in the same way, in 1815, but not heaped together (25-35, 37-43).

The number of individuals represented by these disturbed remains is at least three, and possibly as many as six. The extent to which the bones of individuals were found scattered is well instanced in the case of one of the individuals represented in the heap (15), who was represented also by another bone in the south-east quadrant (19), by a bone from a surface level on the west side of the mound (43), and possibly by bones found in the mediaeval disturbance (30-32) and elsewhere.

The bones were submitted in 1957 to Mr. P. A. Longton and Mr. B. Denston of the Duckworth Laboratory, University Museum of Archaeology and Ethnology, Cambridge, to whom the excavators are grateful for the identifications, upon which the above summary has been based.

Copies of the catalogue of bones are deposited in the Duckworth Laboratory, Cambridge, and at Carisbrooke Castle, I.o.W.

A. OZANNE.

\* *J.B.A.A.*, v. 367.

## APPENDIX II: LAND MOLLUSCA

In the following table are listed the land snails found at various horizons, the key to which is as follows:—

A=buried soil beneath the barrow (specimens recovered while excavating).

A<sup>1</sup>=buried soil beneath the barrow (bulk sample).

B=the ditch (specimens recovered while excavating).

B<sup>1</sup>=the ditch (bulk sample).

C=the mound.

D=the modern ground surface.

	A	A <sup>1</sup>	B	B <sup>1</sup>	C	D	Total
<i>Pomatias elegans</i> (Müller)	33	4	12	4	32	22	107
<i>Carychium tridentatum</i> (Risso)	—	19	—	7	—	—	26
<i>Cochlicopa lubrica</i> (Müller)	1	55	?1	15	4	—	76
<i>Vertigo pygmaea</i> (Draparnaud)	—	7	—	3	—	—	10
<i>Pupilla muscorum</i> (Linné)	—	71	—	67	—	—	138
<i>Lauria cylindracea</i> (da Costa)	—	—	—	7	—	—	7
<i>Acanthinula aculeata</i> (Müller)	—	3	—	1	—	—	4
<i>Vallonia costata</i> (Müller)	3	464	2	171	—	—	640
<i>Vallonia excentrica</i> Sterki	1	64	—	26	—	—	91
<i>Vallonia</i> sp.	—	77	—	14	1	—	92
<i>Ena obscura</i> (Müller)	—	—	—	2	—	—	2
<i>Clausilia bidentata</i> (Ström)	—	4	—	—	—	—	4
<i>Clausilia</i> sp.	—	—	—	2	—	—	2
<i>Ceciloides acicula</i> (Müller)	—	—	—	7	—	—	7
<i>Helicigona lapicida</i> (Linné)	—	—	—	—	2	—	2
<i>Arianta arbustorum</i> (Linné)	1	—	—	—	—	—	1
<i>Helix hortensis</i> Müller	5	—	—	—	4	7	16
<i>Helix nemoralis</i> Linné	16	—	4	—	21	11	52
<i>Helix</i> ( <i>Cepaea</i> ) sp.	19	frag.	4	1	17	12	53
<i>Helix</i> or <i>Arianta</i> apices	—	13	—	4	—	—	17
<i>Helix aspersa</i> Müller	—	—	—	—	4	2	6

C.fwd. 79 781 23 331 85 54 1353

	A	A <sup>1</sup>	B	B <sup>1</sup>	C	D	Total
B.fwd.	79	781	23	331	85	54	1353
<i>Hygromia hispida</i> (Linné)	4	9	2	1	5	—	21
<i>Helicella caperata</i> (Montagu)	—	—	13	—	—	—	13
"    "    var. <i>ornata</i> Picard	—	—	19	—	—	2	21
<i>Helicella virgata</i> (da Costa)	—	—	58	—	3	8	69
<i>Helicella itala</i> (Linné)	39	44	46	38	78	23	268
<i>Punctum pygmaeum</i> (Draparnaud)	—	2	—	1	—	—	3
<i>Discus rotundatus</i> (Müller)	4	6	94	213	8	—	325
<i>Vitrea contracta</i> (Westerlund)	—	1	4	55	—	—	60
<i>Oxychilus cellarius</i> (Müller)	3	2	254	102	1	1	363
<i>Retinella pura</i> (Alder)	—	3	—	—	—	—	3
<i>Retinella nitidula</i> (Draparnaud)	2	—	—	3	1	—	6
<i>Vitrina pellucida</i> (Müller)	—	2	—	—	—	—	2
<i>Agriolimax</i> cf. <i>agrestis</i> (Linné)	—	4	—	2	—	—	6
<i>Agriolimax</i> cf. <i>reticulatus</i> (Müller)	—	—	—	1	—	—	1
<i>Agriolimax</i> cf. <i>laevis</i> (Müller)	—	20	—	10	—	—	30
<b>Total</b>	<b>131</b>	<b>874</b>	<b>513</b>	<b>757</b>	<b>181</b>	<b>88</b>	<b>2544</b>

Of the 32 species and varieties listed above, the slugs can only be tentatively identified by the general shape of their shells; hence the record must be treated cautiously. Although many specimens of *Cochlicopa* are juvenile or broken there seems to be no trace of *lubricella*. The shells listed as *Vallonia* sp. are almost certainly *excentrica*, but in a broken and juvenile state they cannot be separated from *pulchella*, which has, however, not been found anywhere in the excavation.

The fauna is typically post-Glacial containing an abundance of *P. elegans*, which is very rare in interglacial deposits, as also is *V. pellucida*. The fauna from the buried soil surface (A<sup>1</sup>) with its high percentages of dry-living species, *P. muscorum*, *V. costata*, *V. excentrica*, and *H. itala*, indicates dry open downland, for there is no species here which would demand more than sparse scrub for its habitat. It is obviously fairly late in the post-Glacial, for, at an earlier stage before the vegetation was modified by man, the snail fauna was much richer and more hygrophilous. Yet it must be pre-Roman because of the absence of species such as *H. aspersa*, *H. caperata*, and *H. virgata*, which are found on the modern surface (D). Thus it agrees well with what one might expect the fauna to be at the date of the barrow.

The ditch fauna has to be treated with care. The bulk sample contains none of the Roman introductions, although *H. caperata* and *H. virgata* are present among the specimens collected during excavation (B). However, I am informed that rabbits had made warrens along the line of the ditch and thus may be blamed for the introduction of shells from the surface. The burrowing species, *C. acicula*, found in the bulk sample may have got in in this fashion as well. Compared with the surface beneath the barrow the ditch shows spectacular increases in the percentages of *D. rotundatus*, *O. cellarius*, and *V. contracta*. Although these are not marsh species and there is no indication that this was ever more than a dry ditch, these species favour a habitat with perhaps more humus and dead vegetation, such as might be created by the growth of "weeds" in the ditch. Because these three species were already minor elements in the surface fauna, their sudden increase in frequency could have been accomplished very rapidly, perhaps within a year or two, once the more favourable habitat of the ditch was made available. No lengthy period of time to allow for immigration is necessary, and the general similarity between the two lists of species suggests approximate contemporaneity.

Both the mound (C) and the modern surface (D) are of no great interest. Rabbits might well be the cause of the introduction of *H. virgata* and *H. aspersa* into the mound, as these are essentially post-Roman introductions.

It is instructive to compare the fauna obtained by careful visual selection during excavation with that obtained from washing down the usual 3-4lb. bulk sample, especially as no one was aware that this comparison was to be made. The principal causes of the astonishing differences are undoubtedly related to size, as shown by the maximum measurements of the species. The great under-emphasis of *Vallonia* and *Vitrea* and over-emphasis of, for example, *Helix* spp., *H. itala*, *O. cellarius*, and *P. elegans* in the series selected by eye is directly related to this *P. muscorum*, not found by eye at all, is a pale buff when weathered and thus difficult to distinguish from light brown loamy soils. In the present example, with a dominantly xerophilous fauna, such differences would not lead to much difference in ecological interpretation, but one can imagine examples where they might well cause serious differences of interpretation.

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### APPENDIX III : ANIMAL BONES

#### DOMESTIC ANIMALS

The table shows the number of specimens in each layer, the minimum number of animals represented and their age. Age has been estimated from the average age of eruption of teeth in Common Stock and from the wear on the teeth.



Recent work by Dr. Magnus Daegerbol\* on cattle teeth in Denmark has shown that the length of the lower third molar varies between 45–55 millimetres for *Bos primigenius*, 40–47 millimetres for Ertebølle cattle, and 35–45 millimetres for the New Stone Age. The following table gives some comparable measurements.

		3RD Length	MOLAR Breadth	M <sup>1</sup> Length	M <sup>2</sup> Length
Star Carr ( <i>Bos primigenius</i> )		46	18		
Arreton Down	Mound	37	15	31	31
	Surface	40	15	32	32
3-year-old Ayrshire cow		38	13	32	30

Sheep teeth from the mound body are smaller than with the modern Dorset Horn ewe. Some of the animal remains in the body of the barrow may have been scraped from the old land surface and therefore may not be of the same age. However, the teeth measurements suggest domestic animals and they have it in common that all died before maturity at a prime age for eating. If we regard all the specimens in the body of the barrow as of one period at least eight animals have been killed, of which seven have lived at least through one winter and, of these, two cattle have lived through two winters. In any animal breeding economy sufficient animals must be over-wintered to maintain a breeding herd, but these animals were killed at the beginning of their breeding lives. There may then be evidence for a sufficient supply of winter food to be available to over-winter cattle, surplus to breeding requirements.

The parts of the body represented in the body of the barrow are both the upper and lower dentitions of sheep or goat, pig and ox, probably the whole of a sheep or goat, and the fore and hind limbs and some ribs of ox. In spite of one well preserved fragment of horn core, horn cores are noticeably absent.

*Wild Animals.* In the body of the barrow there is one large pig tooth, 24 millimetres by 14 millimetres, which suggests the possibility of wild pig. There is also one canine tooth of otter. In Pit I there are fragments of antler of a young red deer. It is probably not a shed antler, but is too eroded to be certainly so. In the surface collection there is one mandible *Felis* cf. *silvestris*.

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*Department of Archaeology and Anthropology, Cambridge.*

\* Symposium on domestication *RAI*, May (1960).

## SURVEY OF THE LEPIDOPTERA OF NEWTOWN, HAMSTEAD AND CRANMORE.

By JOHN LOBB.

The area under survey includes and extends from the Forestry Commission land west of Cranmore, through Cranmore and Hamstead to the east side of Newtown Estuary (including the Brickfield) and is now under the protection of the National Trust and the Isle of Wight Natural History and Archaeological Society. The Forestry land contains large numbers of Douglas Firs and *Cupressus lawsonia*; Cranmore has many old trees of *Cupressus macrocarpa* (cypress), oak woodlands and areas of gorse and heathland; Hamstead is more open country with much maple and oak; the Newtown area is very varied with large areas of salterns where the Sea Lavender flourishes. The whole Survey Area is a reservoir of natural history subjects and worthy of the protection of the National Trust and Nature Conservancy.

The period of the survey extended from March, 1960, to May, 1963. About 460 species of lepidoptera are recorded, less than 5 per cent. being from old records. The main method of conducting the survey was by means of a mercury-vapour light trap in my garden at Cranmore, combined with work and observation in the field. For eight months of the year the trap was operated seven days a week, and on most occasions all night. Each day the contents had to be checked and specimens not wanted released away from the area of the trap.

Several rare moths were found to be breeding in the area, including Blair's Pinion (540), the larvae being found in the wild state for the first time in Britain in my garden. The micro moth Ford's Slender (2128) (the larva of which spins the lobe of a maple leaf into a neat cone fastened by silken threads and feeds on the cuticle of the leaf inside) was found in fair numbers in the larval state. As far as Britain is concerned, this species has been found only in the Isle of Wight. For more particulars of these two insects see previous articles in the Society's *Proceedings* for 1960 and 1961.

During the survey the author had the valued help and advice of my friend Mr. S. Wakely, a well-known London entomologist and expert on micro moths. Mr. Wakely kindly examined and determined many of the difficult species, advised on the preparation of the list, and visited the Island on several occasions to accompany me and help in the survey.

An outstanding capture was the Three-humped Prominent (112), taken at light on 2nd August, 1960, which, although badly rubbed and worn, was an unusually large specimen measuring  $2\frac{3}{8}$  of an inch across the wings. The Silver Hook (606) and the Horse-chestnut Longwing (952) are believed to be the first Island records. Several specimens of the Reddish Buff (477) were taken in the light trap. This is a very rare insect these days and is to be found now only in a small part of the New Forest and the Isle of Wight.

The Marsh Fritillary (49) is a very uncommon butterfly in the Island, and for some years has been confined to the Cranmore area only, and very difficult to locate. Mr. Wright, late of Cranmore and now residing at Alverstone Village, has taken it, but the larval foodplant, Devils-bit Scabious, is apt to get badly overgrown, causing the butterfly to move to other places where the plant is flourishing. The insect is also prone to attack by a predator. A small ichneumon, a species of *Microgaster*, pierces the skin of the larva and deposits its eggs in the body of the unfortunate victim. The egg hatches and the grub proceeds to feed upon the juices of the larva, being careful to avoid the vital organs. When about to pupate the grub emerges through the skin of the larva and pupates in a small silken cocoon outside. After this drastic treatment the larva is too weak to survive, and perishes. A few larvae manage to escape the attention of this enemy.

A good number of the Peppered Moth (935) appearing at light were of the melanic and intermediate forms, together with the type.

Some of the insects from my previous lists of 1960 and 1961 have been omitted, as the records did not seem trustworthy.

During the survey two spiders attracted my attention. The first was the Zebra Spider, which has the habit of creeping up to within a few inches of the intended victim and landing on the quarry with a spring. The second spider, one of the species of Crab Spiders, was far more interesting to me as it attacks butterflies, bees, and other insects by taking up a position in a flowerhead and seizing its prey with a secure grip as it alights on the flower. I found this spider on most plants, but mainly on roses and wild Bugle. On the latter it would seize a Pearl Bordered Fritillary as it alighted, biting off the wings and taking the body to its lair at the base of the plant. The name of the spider is *Misumena calycina* L., and it is reputed to have the power to adapt its colour to match the flower on which it positions itself. The colour-changing process is not a rapid one, and the author has not particularly noticed this phenomenon, but has seen much destruction of insect life by this spider.

This survey has been a revelation of discovery into the wealth of natural history subjects in our lovely Island, and it is hoped it will inspire all nature lovers to fight for the protection and safe keeping of our Island countryside.

The two previous lists, published in 1960 and 1961, with a few deletions, are incorporated in this one, and the names and numbers are as in I. R. P. Heslop's list, 1961, published in the *Entomologists' Gazette*, 1959 to 1962.

PAPILIONOIDEA	14 <i>Gonepteryx rhamni</i> L.
5 <i>Pieris brassicae</i> L.	16 <i>Pararge megera</i> L.
6 <i>Pieris rapae</i> L.	17 <i>Pararge aegeria</i> L.
7 <i>Pieris napi</i> L.	18 <i>Eumenis semele</i> L.
9 <i>Anthocharis cardamines</i> L.	22 <i>Maniola jurtina</i> L.
13 <i>Colias croceus</i> Fourc.	23 <i>Maniola tithonus</i> L.

- 24 *Coenonympha pamphilus* L.  
 26 *Aphantopus hyperantus* L.  
 27 *Melanargia galathea* L.  
 29 *Limenitis camilla* L.  
 30 *Vanessa atalanta* L.  
 31 *Vanessa cardui* L.  
 33 *Nymphalis io* L.  
 36 *Nymphalis polychloros* L.  
 37 *Aglais urticae* L.  
 38 *Polygonia c-album* L.  
 39 *Argynnis paphia* L.  
 40 *Argynnis cydippe* L.  
 42 *Argynnis aglaia* L.  
 44 *Clossiana euphrosyne* L.  
 45 *Clossiana selene* Schiff.  
 48 *Melitaea cinxia* L.  
 49 *Euphydryas aurinia* Rott.  
 50 *Hamearis lucina* L.  
 51 *Thecla betulae* L.  
 52 *Thecla quercus* L.  
 55 *Callophrys rubi* L.  
 58 *Lycaena phlaeas* L.  
 63 *Aricia agestis* Schiff.  
 64 *Polyommatus icarus* Rott.  
 68 *Celastrina argiolus* L.  
 71 *Pyrgus malvae* L.  
 72 *Erynnis tages* L.  
 73 *Thymelicus sylvestris* Poda  
 76 *Ochlodes venata* Br. & Grey

## SPHINGOIDEA

- 80 *Laothoe populi* L.  
 81 *Smerinthus ocellata* L.  
 83 *Herse convolvuli* L.  
 86 *Sphinx ligustri* L.  
 87 *Hyloicus pinastri* L.  
 95 *Deilephila porcellus* L.  
 96 *Deilephila elpenor* L.  
 97 *Macroglossum stellatarum* L.  
 98 *Hemaris fuciformis* L.

## BOMBYCOIDEA

- 102 *Harpyia furcula* Clerck  
 103 *Cerura vinula* L.  
 104 *Stauropus fagi* L.  
 107 *Chaonia ruficornis* Hufn.  
 108 *Pheosia tremula* Clerck  
 109 *Pheosia gnoma* F.  
 110 *Notodonta ziczac* L.  
 111 *Notodonta dromedarius* L.  
 112 *Notodonta tritophus* Schiff.  
 114 *Notodonta trepida* Esp.  
 116 *Lophopteryx cucullina* Schiff.  
 117 *Lophopteryx capucina* L.  
 119 *Ptilophora plumigera* Schiff.  
 120 *Pterostoma palpina* Clerck  
 121 *Phalera bucephala* L.  
 122 *Clostera curtula* L.  
 125 *Habrosyne pyritoides* Hufn.  
 126 *Thyatira batis* L.  
 127 *Tethea ocularis* L.  
 131 *Asphalia diluta* Schiff.  
 132 *Achlya flavicornis* L.  
 133 *Polyploca ridens* F.  
 135 *Orgyia antiqua* L.  
 137 *Dasychira pudibunda* L.  
 139 *Euproctis similis* Fuessl.  
 145 *Malacosoma neustria* L.  
 147 *Trichiura crataegi* L.  
 148 *Poecilocampa populi* L.  
 150 *Lasiocampa quercus* L.  
 152 *Macrothylacia rubi* L.  
 154 *Philudoria potatoria* L.  
 156 *Gastropacha quercifolia* L.  
 159 *Saturnia pavonia* L.  
 161 *Drepana binaria* Hufn.  
 162 *Drepana cultraria* F.  
 163 *Drepana falcataria* L.  
 164 *Drepana lacertinaria* L.  
 165 *Cilix glaucata* Scop.  
 166 *Nola cucullatella* L.  
 168 *Nola albula* Schiff.  
 171 *Atolmis rubricollis* L.  
 174 *Miltochrista miniata* Forst.  
 176 *Cybosia mesomella* L.  
 177 *Lithosia quadra* L.  
 178 *Eilema deplana* Esp.  
 179 *Eilema griseola* Hübn.  
 180 *Eilema lurideola* Zinck.  
 185 *Eilema sororcula* Hufn.  
 191 *Callimorpha jacobaeae* L.  
 194 *Spilosoma lutea* Hufn.  
 196 *Diacrisia sannio* L.

- 197 *Phragmatobia fuliginosa* L.  
 199 *Parasemia plantaginis* L.  
 200 *Arctia caja* L.  
 201 *Arctia villica* L.
- PSYCHOIDEA
- 208 *Apoda avellana* L.  
 215 *Zygaena trifolii* Esp.  
 218 *Zygaena filipendulae* L.  
 221 *Procris statices* L.  
 229 *Aegeria tipuliformis* Clerck  
 230 *Aegeria flaviventris* Staud.  
 246 *Fumaria casta* Pall.  
 265 *Cossus cossus* L.
- HEPIALOIDEA
- 266 *Hepialus humuli* L.
- NOCTUOIDEA
- 273 *Euxoa nigricans* L.  
 274 *Euxoa tritici* L.  
 277 *Agrotis segetum* Schiff.  
 280 *Agrotis clavis* Hufn.  
 285 *Agrotis exclamationis* L.  
 286 *Agrotis ipsilon* Hufn.  
 289 *Lycophotia varia* Vill.  
 292 *Peridroma porphyrea* Schiff.
- 299 *Diarsia mendica* F.  
 302 *Diarsia rubi* View.  
 304 *Ochropleura plecta* L.  
 309 *Amathes glareosa* Esp.  
 310 *Amathes castanea* Esp.  
 311 *Amathes baja* Schiff.  
 313 *Amathes c-nigrum* L.  
 318 *Amathes xanthographa* Schiff.
- 319 *Axylia putris* L.  
 323 *Cerastis rubricosa* Schiff.  
 324 *Naenia typica* L.  
 327 *Euschesis comes* Hübn.  
 329 *Euschesis janthina* Schiff.  
 330 *Euschesis interjecta* Hübn.  
 331 *Noctua pronuba* L.  
 332 *Lampra fimbriata* Schreber  
 334 *Pyrrhia umbra* Hufn.  
 340 *Heliothis peltigera* Schiff.  
 342 *Anarta myrtilli* L.
- 346 *Melanchra persicariae* L.  
 349 *Polia nebulosa* Hufn.  
 351 *Diataraxia oleracea* L.  
 353 *Ceramica pisi* L.  
 354 *Hada nana* Hufn.  
 357 *Hadena w-latinum* Hufn.  
 363 *Hadena bicolorata* Hufn.  
 370 *Hadena rivularis* F.  
 376 *Tholera popularis* F.  
 377 *Tholera cespitis* Schiff.  
 378 *Cerapteryx graminis* L.  
 382 *Orthosia gothica* L.  
 383 *Orthosia miniosa* Schiff.  
 384 *Orthosia cruda* Schiff.  
 385 *Orthosia stabilis* Schiff.  
 387 *Orthosia incerta* Hufn.  
 388 *Orthosia munda* Schiff.  
 390 *Orthosia gracilis* Schiff.  
 393 *Leucania pallens* L.  
 395 *Leucania impura* Hübn.  
 399 *Leucania litoralis* Curt.  
 400 *Laucania comma* L.  
 403 *Leucania l-album* L.  
 404 *Leucania vitellina* Hübn.  
 407 *Leucania lythargyria* Esp.  
 408 *Leucania conigera* Schiff.  
 411 *Rhizedra lutosa* Hübn.  
 413 *Arenostola pygmina* Haw.  
 429 *Meristis trigrammica* Hufn.  
 430 *Caradrina morpheus* Hufn.  
 435 *Caradrina clavipalpis* Scop.  
 436 *Laphygma exigua* Hübn.  
 441 *Apamea lithoxylaea* Schiff.  
 444 *Apamea monoglypha* Hufn.  
 446 *Apamea epomidion* Haw.  
 447 *Apamea crenata* Hufn.  
 448 *Apamea sordens* Hufn.  
 449 *Apamea unanimitis* Hübn.  
 456 *Apamea secalis* L.  
 465 *Procus fasciuncula* Haw.  
 467 *Procus furuncula* Schiff.  
 469 *Luperina testacea* Schiff.  
 473 *Phlogophora meticulosa* L.  
 476 *Thalophila matura* Hufn.  
 477 *Acosmetia caliginosa* Hübn.
- 478 *Petilampa minima* Haw.  
 488 *Gortyna micacea* Esp.

- 490 *Gortyna flavago* Schiff.  
 494 *Cosmia affinis* L.  
 496 *Cosmia trapezina* L.  
 499 *Zenobia retusa* L.  
 500 *Zenobia subtusa* Schiff.  
 501 *Panemeria tenebrata* Scop.  
 504 *Rusina tenebrosa* Hübn.  
 506 *Cryphia perla* Schiff.  
 513 *Apatele aceris* L.  
 514 *Apatele megacephala*  
     Schiff.  
 517 *Apatele tridens* Schiff.  
 518 *Apatele psi* L.  
 523 *Apatele rumicis* L.  
 524 *Craniophora ligustri* Schiff.  
 529 *Cucullia chamomillae*  
     Schiff.  
 533 *Cucullia verbasci* L.  
 538 *Lithophane semibrunnea*  
     Haw.  
 540 *Lithophane leautieri* Boisd.  
 543 *Lithophane ornitopus* Hufn.  
 546 *Xylocampa areola* Esp.  
 550 *Brachionycha sphinx* Hufn.  
 552 *Bombycia viminalis* F.  
 555 *Aporophyla lunula* Stroem  
 557 *Allophyes oxyacanthae* L.  
 559 *Griposia aprilina* L.  
 575 *Agrochola lota* Clerck  
 578 *Agrochola lychnidis* Schiff.  
 579 *Anchoscelis helvola* L.  
 582 *Tiliacea citrago* L.  
 584 *Citria lutea* Stroem  
 585 *Cirrhia icteritia* Hufn.  
 586 *Cirrhia gilvago* Schiff.  
 590 *Conistra vaccinii* L.  
 592 *Bena prasinana* L.  
 593 *Pseudoips bicolorana*  
     Fuessl.  
 595 *Nycteola revayana* Scop.  
 603 *Lithacodia fasciana* L.  
 606 *Eustrotia uncula* Clerck  
 610 *Catocala nupta* L.  
 615 *Euclidimera mi* Clerck  
 616 *Ectypa glyphica* L.  
 619 *Episema caeruleocephala* L.  
 623 *Plusia chrysitis* L.  
 627 *Plusia festucae* L.  
 632 *Plusia ni* Hübn.  
 635 *Plusia gamma* L.  
 639 *Unca tripartita* Hufn.  
 644 *Lygephila pastinum* Treits.  
 648 *Rivula sericealis* Scop.  
 651 *Scoliopteryx libatrix* L.  
 653 *Hypena proboscidalis* L.  
 661 *Zanclognatha*  
     *tarsipennalis* Treits.  
 666 *Laspeyria flexula* Schiff.  
  
 GEOMETROIDEA  
 669 *Alsophila aescularia* Schiff.  
 671 *Pseudoterpna pruinata*  
     Hufn.  
 673 *Comibaena pustulata* Hufn.  
 674 *Hemithea aestivaria* Hübn.  
 675 *Chlorissa viridata* L.  
 680 *Jodis lactearia* L.  
 681 *Calothysanis amata* L.  
 682 *Cosymbia albipunctata*  
     Hufn.  
 683 *Cosymbia pendularia*  
     Clerck  
 684 *Cosymbia annulata*  
     Schulzens  
 686 *Cosymbia porata* L.  
 687 *Cosymbia punctaria* L.  
 692 *Scopula promutata* Guen.  
 707 *Sterrrha dimidiata* Hufn.  
 710 *Sterrrha seriata* Schrank  
 711 *Sterrrha subsericeata* Haw.  
 716 *Sterrrha straminata* Borkh.  
 717 *Sterrrha aversata* L.  
 718 *Sterrrha trigeminata* Haw.  
 720 *Sterrrha emarginata* L.  
 721 *Rhodometra sacraria* L.  
 725 *Xanthorhoe ferrugata*  
     Clerck  
 726 *Xanthorhoe spadicearia*  
     Schiff.  
 729 *Xanthorhoe montanata*  
     Schiff.  
 730 *Xanthorhoe fluctuata* L.  
 731 *Nycterosea obstipata* F.  
 733 *Colostygia pectinataria*  
     Knoch  
 738 *Earophila badiata* Schiff.

- 739 *Anticlea derivata* Schiff.  
 747 *Perizoma alchemillata* L.  
 752 *Euphyia unangulata* Haw.  
 756 *Euphyia rubidata* Schiff.  
 758 *Euphyia bilineata* L.  
 761 *Lyncometra ocellata* L.  
 764 *Electrophaes corylata*  
   Thunb.  
 765 *Ecliptopera silaceata*  
   Schiff.  
 768 *Lygris testata* L.  
 770 *Lygris mellinata* F.  
 772 *Cidaria fulvata* Forst.  
 773 *Plemyria rubiginata* Schiff.  
 776 *Dysstroma truncata* Hufn.  
 779 *Thera obeliscata* Hübn.  
 784 *Hydriomena furcata*  
   Thunb.  
 791 *Rheumaptera undulata* L.  
 794 *Epirrhoe rivata* Hübn.  
 795 *Epirrhoe alternata* Müll.  
 800 *Chesias legatella* Schiff.  
 803 *Anaitis plagiata* L.  
 811 *Mysticoptera sexalata* Retz.  
 814 *Trichopteryx carpinata*  
   Borkh.  
 817 *Ortholitha mucronata* Scop.  
 818 *Ortholitha chenopodiata* L.  
 826 *Oporinia dilutata* Schiff.  
 830 *Asthena albulata* Hufn.  
 839 *Eupithecia subumbrata*  
   Schiff.  
 843 *Eupithecia tenuiata* Hübn.  
 847 *Eupithecia lineariata* Schiff.  
 850 *Eupithecia exiguata* Hübn.  
 852 *Eupithecia valerianata*  
   Hübn.  
 855 *Eupithecia centaureata*  
   Schiff.  
 857 *Eupithecia intricata* Zett.  
       (S. Sp. *arceuthata* Frey.)  
 858 *Eupithecia satyrata* Hübn.  
 859 *Eupithecia tripunctaria*  
   H.-S.  
 860 *Eupithecia absinthiata*  
   Clerck  
 864 *Eupithecia vulgata* Haw.  
 866 *Eupithecia castigata* Hübn.  
 867 *Eupithecia icterata* Vill.  
 872 *Eupithecia nanata* Hübn.  
 884 *Chloroclystis coronata*  
   Hübn.  
 886 *Chloroclystis rectangulata*  
   L.  
 887 *Gymnoscelis pumilata*  
   Hübn.  
 889 *Abraxas grossulariata* L.  
 891 *Lomaspilis marginata* L.  
 892 *Ligdia adustata* Schiff.  
 893 *Bapta distinctata* H.-S.  
 895 *Bapta temerata* Schiff.  
 897 *Deilinia exanthemata* Scop.  
 899 *Campaea margaritata* L.  
 901 *Semiothisa notata* L.  
 904 *Theria rupicaparia* Schiff.  
 905 *Erannis leucophaearia*  
   Schiff.  
 906 *Erannis aurantiaria* Hübn.  
 908 *Erannis defoliaria* Clerck  
 911 *Ennomos quercinaria* Hufn.  
 914 *Deuteronomos erosaria*  
   Schiff.  
 915 *Selenia bilunaria* Esp.  
 917 *Selenia tetralunaria* Hufn.  
 918 *Apeira syringaria* L.  
 919 *Gonodontis bidentata*  
   Clerck  
 920 *Colotois pennaria* L.  
 921 *Crocallis elinguaris* L.  
 922 *Plagodis dolabraria* L.  
 924 *Epione repandaria* Hufn.  
 926 *Cepphis advenaria* Hübn.  
 927 *Pseudopanthera macularia*  
   L.  
 928 *Ourapteryx sambucaria* L.  
 929 *Phigalia pedaria* F.  
 930 *Apocheima hispidaria*  
   Schiff.  
 933 *Lycia hirtaria* Clerck  
 934 *Biston strataria* Hufn.  
 935 *Biston betularia* L.  
 936 *Menophra abruptaria*  
   Thunb.  
 938 *Cleora rhomboidaria* Schiff.  
 939 *Cleorodes lichenaria* Hufn.  
 941 *Alcis repandata* L.

- 945 *Pseudoboarmia punctinalis* Scop.  
 946 *Ectropis biundularia* Borkh.  
 947 *Ectropis crepuscularia* Schiff.  
 952 *Pachynemia hippocastanaria* Hübn.  
 958 *Ematurga atomaria* L.  
 960 *Selidosema brunnearia* Vill.  
 963 *Lithina chlorosata* Scop.  
 964 *Chiasmia clathrata* L.  
 968 *Aspitates ochrearia* Rossi
- PYRALOIDEA
- 985 *Scoparia basistrigalis* Knaggs  
 986 *Scoparia ambigualis* Treits.  
 996 *Eurrhyncha hortulata* L.  
 998 *Palpita unionalis* Hübn.  
 1001 *Nomophila noctuella* Schiff.  
 1005 *Pyrausta purpuralis* L.  
 1016 *Udea nivealis* F.  
 1019 *Udea olivalis* Schiff.  
 1022 *Haritala ruralis* Scop.  
 1023 *Perinephela coronata* Hufn.  
 1025 *Perinephela lancealis* Schiff.  
 1027 *Perinephela verbascalis* Schiff.  
 1029 *Mecyna asinalis* Hübn.  
 1033 *Ebulea crocealis* Hübn.  
 1043 *Endotricha flammealis* Schiff.  
 1044 *Herculia glaucinalis* L.  
 1045 *Hypsopygia costalis* F.  
 1054 *Synaphe punctalis* F.  
 1066 *Nephopteryx palumbella* F.  
 1069 *Nephopteryx genistella* Dup.  
 1073 *Salebria betulae* Deg.  
 1076 *Phycita roborella* Schiff.  
 1088 *Homoeosoma cretaceella* Rössl.  
 1096 *Myelois cribrumella* Hübn.  
 1102 *Eurhodope marmorea* Haw.  
 1116 *Aphomia sociella* L.  
 1123 *Crambus uliginosellus* Zell.  
 1126 *Crambus pratellus* L.
- 1127 *Crambus perlellus* Scop.  
 1128 *Crambus hortuellus* Hübn.  
 1133 *Catoptria falsellus* Schiff.  
 1136 *Catoptria pinellus* L.  
 1139 *Agriphila culmellus* L.  
 1140 *Agriphila geniculeus* Haw.  
 1142 *Agriphila inquinatellus* Schiff.  
 1143 *Agriphila tristellus* Schiff.  
 1156 *Agdistis bennetii* Curt.  
 1158 *Stenoptilia pterodactyla* L.  
 1160 *Stenoptilia bipunctidactyla* Scop.  
 1162 *Stenoptilia zophodactyla* Dup.  
 1166 *Capperia britanniodactyla* Gregs.  
 1175 *Platyptilia gonodactyla* Schiff.  
 1178 *Platyptilia pallidactyla* Haw.  
 1179 *Pterophorus pentadactylus* L.  
 1192 *Oidaematophorus lithodactylus* Treits.  
 1194 *Alucita hexadactyla* L.
- TORTRICOIDEA
- 1202 *Eupoecilia angustana* Hübn.  
 1203 *Lozopera francillana* F.  
 1204 *Lozopera dilucidana* Steph.  
 1209 *Phalonia cnicana* Westw.  
 1218 *Agapeta zoegana* L.  
 1239 *Cochylis roseana* Haw.  
 1241 *Stenodes straminea* Haw.  
 1245 *Pandemis heparana* Schiff.  
 1252 *Archips oporana* L.  
 1254 *Archips crataegana* Hübn.  
 1256 *Archips rosana* L.  
 1270 *Lozotaenia forsterana* F.  
 1281 *Isotrias trifasciana* Don.  
 1287 *Cnephasia chrysanthæana* Dup.  
 1289 *Cnephasia communana* H.-S.  
 1294 *Tortricodes tortricella* Hübn.



## BOTANICAL NOTES FOR 1962.

By Miss T. WHITE.

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The plants recorded for 1962 show the continued spread of several species; many are new records for the area concerned. *Claytonia alsinoides*, *Coronilla scorpiodes*, and *Chenopodium murale* are believed to be new records for the Island.

Contributors of the following records are indicated by their initials, as follows:—

Miss G. Bullock	(G.B.)	Miss L. Kennedy	(L.K.)
Miss T. Bennett	(T.B.)	Miss M. Middleton	(M.M.)
Miss K. Cooper	(K.C.)	Miss E. Newnham	(E.N.)
Miss R. Cowdray	(R.C.)	Mrs. Saunders	(A.T.S.)
Mrs. D. Frazer	(D.F.)	Mrs. M. Seabroke	(M.S.)
Mr. O. H. Frazer	(O.F.)	Miss T. White	(T.W.)
Mrs. M. Henry	(M.H.)	Many observers	(M.O.)
Rev. Father Johns Higgins,	O.S.B.	(J.H.)	

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### FLOWER RECORDS, 1962.

- 29 *Ophioglossum vulgatum* (Adder's Tongue). Ryde. (G.B.).  
35 *Taxus baccata* (Yew). Chalk Pit, Newtown (M.S.).  
66 *Fumaria boraei* (Fumitory). Binstead. (G.B.).  
95 *Erophila praecox* (Whitlow Grass). Quarr. (J.H.).  
98 *Barbarea verna* (American Land Cress). Quarr. (J.H.).  
102 *Rorippa islandica* (Marsh Yellow Cress). Binstead. (G.B.).  
123 *Silene noctiflora* (Night-flowering Catchfly). Mottistone. (O.F.).  
141 *Arenaria leptoclados* (Small Thyme-leaved Sandwort). Quarr. (J.H.).  
150 *Claytonia alsinoides* (Pink Purslane). Luccombe. (E.N.). (First record).  
154 *Chenopodium murale* (Nettle-leaved Goosefoot). East Cowes. (J.H.). (First record).  
*Chenopodium urbicum* (var. *intermedium*) (Upright Goosefoot). Quarr. (J.H.).  
160 *Salicornia ramosissima* (Twiggy Glasswort). Quarr, King's Quay. (J.H.).  
*Salicornia pusilla* (Fragile Glasswort). Quarr, King's Quay. (J.H.).  
166 *Linum bienne* (Pale Flax). St. Helens. (M.S.).

- 192 *Trifolium fragiferum* (Strawberry Clover). Newtown. (M.S.).
- 203 *Coronilla scorpiodes* (Scorpion Vetch). Ryde. (M.H.). (First record).
- 207 *Lathyrus nissolia* (Grass Vetchling). Ryde. (M.S.).  
*Lathyrus sativus* (Chickling Pea). Smallbrook. (Mrs. Williams).
- 211 *Rubus fruticosus vestitus*. Quarr. (J.H.).
- 221 *Aphanes arvensis* (Parsley Piert). Rew Down. T.W.
- 238 *Umbilicus rupestris* (Wall Pennywort). Brighstone. (D.F.).
- 254 *Epilobium adenocaulon x parviflorum*. Quarr. (J.H.).
- 283 *Bupleurum rotundifolium* (Thorow-wax). Shanklin. (E.N.).  
 Wootton (G.B.).
- 319 *Euphorbia paralias* (Seaspurge). Newtown. (M.S.).
- 320 *Polygonum arenastrum*. King's Quay. (J.H.).
- 367 *Primula veris x vulgaris* (False Oxlip). Newtown. (M.S.).
- 374 *Samolus valerandi* (Brookweed). Osborne. (M.S.).
- 382 *Centaureum pulchellum* (Slender Centaury). East Cowes. (J.H.).  
*Centaureum erythraea* (Common Centaury). Fishbourne. (J.H.).  
*Centaureum capitatum* (Dumpy Centaury). Freshwater. (M.S.).
- 384 *Gentiana anglica* (Early Gentian). (June 6). Afton Down. (J.H.).
- 386 *Menyanthes trifoliata* (Bogbean). Alverstone. (M.S.).
- 400 *Myosotis secunda* (Creeping Water Forget-me-Not). Binstead. (G.B.).
- 406 *Calystegia pulchra*. East Cowes. (J.H.).
- 411 *Hyoscyamus niger* (Henbane). Newtown. (M.S.).
- 430 *Veronica filiformis* (Slender Speedwell). Spreading in many areas. (M.O.).
- 469 *Scutellaria galericulata* (Skull Cap). Scotchells, Alverstone. (E.N.).
- 485 *Galium uliginosum* (Fen Bedstraw). Binstead. (G.B.).
- 506 *Senecio squalidus* (Oxford Ragwort). Osborne, East Cowes, Havenstreet. (J.H., M.S., G.B.). Uplands. (A.W.W.).  
*Senecio viscosus* (Sticky Groundsel). Osborne. (M.S.).  
*Senecio crucifolius*. Havenstreet. (G.B.).
- 521 *Erigeron acer* (Blue Fleabane). Mottistone. (D.F.).
- 544 *Centaurea calcitrapa* (Star Thistle). Brighstone. (D.F.).
- 552 *Tragopogon minor* (Lesser Goatsbeard). (6 feet high). Ventnor. (T.W.).

- 607 **Allium roseum** (Rosy Garlic). Freshwater. (M.S.).  
**Allium paradoxum** (Few-flowered Leek). Bembridge. (G.B.).
- 624 **Cephalanthera damasonium** (Broad Helleborine). (In bloom 12-10-1962). (E.N.). Chillerton. (A.T.S.).
- 625 **Epipactis palustris** (Marsh Helleborine). Totland. (M.S.).
- 629 **Neottia nidus avis** (Bird's Nest Orchid). Rookley. (A.T.S.).
- 636 **Gymnadenia densiflora** (Large scented orchid). Totland (M.S.).
- 640 **Ophrys apifera** (Bee Orchid). (White variety). Scotchells. (E.N.). Chillerton. (A.T.S.).
- 652 **Sparganium erectum** (Branched Bur Reed). Chillerton. (A.T.S.).
- 655 **Scirpus tabernæ montani**. Binstead. (G.B.).
- 656 **Eleocharis multicaulis**. Binstead. (G.B.).  
**Eleocharis palustris**. Binstead. (G.B.).
- 663 **Carex spicata**. Quarr. (J.H.).
- 669 **Glyceria declinata**. Whitefield. (A.W.W.). Quarr, Springhill. (J.H.).  
**Glyceria plicata**. Binstead. (G.B.). Quarr. (J.H.).
- 672 **Vulpia bromides**. Binstead. (G.B.).
- 690 **Gaudina fragilis**. Havenstreet, Binstead, Fishbourne (G.B.). Ryde. (J.H.).
- 692 **Avena ludoviciana**. Binstead. (G.B.).
- 701 **Agrostis gigantea**. Binstead. (G.B.).

# BIRD REPORT FOR 1962.

By J. STAFFORD.

In 1962 the number of species recorded was 181—the highest ever. This was not primarily due to occurrences of rarities, but rather to more records than usual of the irregular visitors, and it should probably be attributed to more regular and consistent observations by a number of watchers—a welcome trend.

Two species which were new to the Island's list were Collared Dove and Alpine Swift, while some other unusual ones worthy of special mention were Gadwall, Canada Goose, Osprey, Wood Sandpiper, Pomarine Skua, Iceland Gull, Little Auk, Aquatic Warbler, and Red-breasted Flycatcher.

The cold weather at the end of 1961 lasted into January, 1962, and presumably caused the occurrences at this time of White-fronted and Brent Geese, and more Coot and Snow Bunting than usual. The other end of the year saw the onset of the very severe cold spell of 1962-63, which will be dealt with in the next *Report* as it was almost entirely in 1963; however, a few interesting 1962 occurrences at the beginning of this cold spell (Dec. 29th-31st) were Scaup, Ruff, and Tree Sparrow.

My thanks are due to everyone who contributed notes, whether published or not; the *Report* is necessarily a selection from a much larger quantity of material, all of which is valuable. Mr. E. J. Wiseman was again helpful in collecting together the notes of most of the visiting bird-watchers from the mainland.

**Toxic Chemicals.** The adverse effects of agricultural and horticultural chemicals on birds have recently had a lot of publicity. In the Isle of Wight several birds have been reported dead or dying in circumstances suggesting poisoning from this cause, and two of them which were analysed for the *B.T.O./R.S.P.B. Joint Committee on Toxic Chemicals* contained the following poisons in their viscera :—

	Chemicals in parts per million			
	Mercury	Benzene hexachloride	Dieldrin	Aldrin
Greenfinch, Cowes, March 5th	0.2	0.5	2.0	—
Pied Wagtail, Sandown, July 19th	1.0	—	0.1	0.2

The Greenfinch was the ringed bird referred to in the systematic list. The fact that these two birds have completely different diets indicates how widespread these poisons now are.

Another species badly hit by toxic chemicals is the Peregrine (see *British Birds*, vol. 56, pp. 124-139; *Bird Study*, vol. 10, pp. 56-90). In 1962 there was no record of this species which for centuries has been so familiar in the Isle of Wight.

**Abbreviations, etc.** Records with an element of doubt are enclosed in square brackets [ ]. The order, numeration, and nomenclature follow the British Ornithologists' Union's *Check-List* (1952), except

that the English names are those used by *British Birds*. All records refer to 1962 unless otherwise stated. Observers are indicated by their initials in the systematic list. m.o., many observers (more than four). ♂, male. ♀, female. S.C.P., St. Catherine's Point.

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#### SYSTEMATIC LIST

- 1 **Black-throated Diver.** Recorded only at S.C.P.: 2 on March 25th, 5 on 26th, 1 on 27th, 28th, 29th, 31st, 3 on April 17th, 4 on 19th, 3 on 20th (m.o.). On the last four dates all flew E.
- 2 **Great Northern Diver.** Also recorded only at S.C.P.: 1 on March 29th, 2 on 31st, 2 on April 18th, 19th, 1 on 20th (m.o.). As the previous species, on the last four dates all flew E.
- 4 **Red-throated Diver.** One at Newtown on Jan. 2nd (MMS). Also numerous records [including some unidentified divers which were probably this species] at S.C.P.
- 5 **Great Crested Grebe.** 2 in Osborne Bay on Jan. 13th and 14th (AJH, MMS). 1 at Newtown on Jan. 7th (JR, JS) and 18th, and Dec. 29th (MMS). 1 found dead at Shanklin on Feb. 25th (JMC). 1 flew N. past Foreland on Dec. 29th (JKB, GHR).
- 8 **Black-necked Grebe.** One at Newtown on Jan. 9th and 16th (MMS).
- 9 **Little Grebe.** 53 on the R. Medina on Jan. 14th (LK). Numbers there in the autumn increased from 7 on Oct. 7th to 53 again on Nov. 24th (m.o.).
- 16 **Manx Shearwater.** Flying past S.C.P.: 1 to W. on March 25th and May 6th, 8 to E. on May 12th, 25 to E. on May 18th, 6 to W. and 9 to E. on May 19th, 38 to W. on Aug. 6th, and 1 to W. on Aug. 12th (m.o.). Also 4 approached Foreland from E. and left to S. in a gale on Aug. 26th (JKB, GHR).
- 26 **Fulmar.**

- 27 **Gannet.** Numerous records at S.C.P. (m.o.). Maxima on July 28th, when 87 flew E. and 3 W. (EJW), and Aug. 11th, when 34 flew E. and 57 W. (WHT, EJW). Almost all were adult.
- 28 **Cormorant.**
- 29 **Shag.**
- 30 **Heron.** 18 nests were occupied in the Wootton heronry (RSC). One nest at Bembridge (AJH).
- 45 **Mallard.** C. 50 in Brading Marsh and 69 in Whitecliff Bay on Dec. 29th (JKB, GHR).
- 46 **Teal.** Largest numbers counted at Newtown were 465 on Jan. 14th and 650 on Dec. 16th (MMS).
- 47 **Garganey.** S.C.P. : 10 flew to E. on March 18th (EJW), 2 to E. on April 19th (JHT, EW), and 2 to W. and returned to E. on May 12th (m.o.). 4 at Foreland on Aug. 6th and 3 at Bembridge on Aug. 25th (JKB, GHR).
- 49 **Gadwall.** A pair flew W. past S.C.P. on April 14th (MMS).
- 50 **Wigeon.** 312 counted at Newtown on Jan. 14th (MMS).
- 52 **Pintail.** 6 at Newtown on Feb. 1st (MMS). 3 at Bembridge on Dec. 16th (AJH).
- 53 **Shoveler.** Unusually many at Newtown : 51 on Jan. 5th, 60 on Jan. 15th (MMS), 43 on Nov. 25th (JMC), and 52 on Dec. 9th (MMS).  
Up to 4 at Bembridge, Nov. 18th-Dec. 16th (AJH).
- 55 **Scaup.** Bembridge : 4 on Oct. 14th (AJH), 1 on Nov. 24th and 2 on Dec. 9th (JMC). A ♂ at Sandown on Dec. 29th (JKB, GHR).
- 56 **Tufted Duck.** R. Medina : 2 on Jan. 1st (MMS), 1 on Dec. 2nd and 28th (ND). Bembridge : 28 on Dec. 16th (AJH) and 14 on Dec. 29th (JKB, GHR).
- 57 **Pochard.** 11 on Medina on Jan. 14th (LK). 30 at Newtown on Dec. 29th (MMS).  
Many more than ever before at Bembridge : Increased from 4 on Oct. 28th to 79 on Dec. 16th, then declined to about 40 at end of year (JMC, AJH, JR, JS).
- 60 **Goldeneye.** 2 on Medina on Jan. 1st (MMS) and 4 there on Feb. 6th and 11th (RJM). A ♀ flew W. past S.C.P. on Nov. 17th (LM, DBW).
- 61 **Long-tailed Duck.** The ♀ on the Medina at the end of 1961 (see 1961 *Report*) stayed until Feb. 24th (JS).  
Flying E. past S.C.P. : 2 on March 23rd (EW), 2 on April 18th (JHT, EW), and 1 on April 20th (m.o.).
- 62 **Velvet Scoter.** Flying past S.C.P. : a ♂ to W. on March 28th (EW), 3 to E. on April 17th (JHT), 7 to E. on April 19th (JHT, EW), and 1 to E. on Nov. 17th (LM, DBW).
- 64 **Common Scoter.** The peak spring passage at S.C.P. occurred between April 17th and 23rd ; on consecutive days 403, 130, 1070, 155, 165, 93, and 100 flew past to E. (m.o.).  
A ♂ at Newtown on Jan. 7th and 9th and March 10th (JR, MMS, JS).

- 67 **Eider.** Movements past S.C.P. : 2 to E. on March 31st (RB, AS, EW, EJW) ; 12 to E. on April 19th (JHT, EW) ; 2 to E. on April 24th (JSi, MWB) ; 1 to E. on Nov. 17th and 1 to W. on Nov. 18th (LM, DBW).
- 69 **Red-breasted Merganser.** Several records at four localities along the N. coast, Jan.-March and Dec., and flying E. past S.C.P., March, April, and Nov. (m.o.).
- 73 **Shelduck.** 273 counted at Newtown on Feb. 18th (MMS). Again increased remarkably on the Medina—60 on Jan. 14th (LK) and 50 on Dec. 28th (ND). 20 on sea at King's Quay on Feb. 10th (RJM).
- 76 **White-fronted Goose.** 12 at Newtown on Jan. 2nd (MMS). [In cold weather c. 60 unidentified geese flew S. over Shanklin on Jan. 1st (EMN), and c. 180 S. over Parkhurst Forest on Jan. 5th (JR) ]
- 80 **Brent Goose.** 40 at Newtown on Jan. 5th (MMS). Flying E. past S.C.P. : 11 on March 28th (EW), 21 on April 17th (JHT) and 4 on April 19th (JHT, EW).
- 82 **Canada Goose.** 3 flew E. past Newtown on April 29th (AS, EJW).
- 84 **Mute Swan.** One on the Medina on Oct. 14th (WS) was wearing a coloured ring which showed that it had come from a herd at Paghham or Bosham, Sussex.
- 91 **Buzzard.** One at Fishbourne on July 16th (HK). One N. of Shorwell on April 2nd (DN). One over Ryde on May 1st (PP).
- 93 **Sparrowhawk.**
- 102 **Montagu's Harrier.** 1 ♀ at Alum Bay on May 3rd (JMC).
- 103 **Osprey.** One at Newtown, Aug. 30th-Sept. 4th (m.o.). It was seen each day at high tide, being continually mobbed while fishing by Black-headed Gulls, Common Terns, and Swallows. Once it caught a mullet about 15 inches long and apparently had difficulty in rising with its prey. After catching fish it twice flew away to the E.
- 104 **Hobby.** One flew N. over S.C.P. on March 23rd (EW).
- 107 **Merlin.** A ♀ at Newtown on Feb. 17th (MMS) and 18th (EW, EJW).
- 110 **Kestrel.**
- 115 **Red-legged Partridge.** 2 between Newport and Yarmouth on June 9th (BWR).
- 116 **Partridge.**
- 117 **Quail.** One on Rowborough Down, Shorwell, on May 14th (MMS).
- 118 **Pheasant.**
- 120 **Water Rail.**
- 126 **Moorhen.**

- 127 **Coot.** 29 on the Medina on Jan. 14th (LK). C. 160 in Brading Harbour on Dec. 29th (JKB, GHR).
- 131 **Oystercatcher.**
- 133 **Lapwing.**
- 134 **Ringed Plover.**
- 139 **Grey Plover.** Newtown: 18 on Aug. 24th, in excellent summer plumage, and 30 on Nov. 9th (MMS). Also 1 with Golden Plover at Yafford on Dec. 9th (JMC).
- 140 **Golden Plover.** Newtown: 55 on Jan. 1st (MMS), 125 on Feb. 18th (EW, EJW), c. 200 on Nov. 25th (LK) and 82 on Dec. 18th (MMS). Also 182 at Yafford on Dec. 9th (JMC).
- 143 **Turnstone.**
- 145 **Snipe.**
- 147 **Jack Snipe.** One at Thorness Bay on Feb. 4th (AJH, RJM, MMS, JS). 2 at Bembridge on Feb. 18th and March 18th (AJH).
- 148 **Woodcock.**
- 150 **Curlew.** Largest number counted at Newtown was 350 on Jan. 16th (MMS).
- 151 **Whimbrel.** First at S.C.P. on April 19th—2 flying E. (JHT, EW). 30 at Newtown on Aug. 4th (MMS).
- 154 **Black-tailed Godwit.** C. 240 at Newtown on Feb. 18th (MMS)—quite the largest flock ever recorded in the Island.  
Recorded by the Medina apparently for the first time—54 on Jan. 14th, 6 on Oct. 7th, and several later records of up to 4 until Dec. 2nd (JMC, ND, LK). 20-30 in Brading Marsh on April 29th (RAL)—apparently the first record for this locality, too.
- 155 **Bar-tailed Godwit.** Large movements to E. past S.C.P. in April—140 on 26th, 620 on 27th, and 330 on 28th (MWB, JSi). The only records at Newtown were 8 on April 29th (AS, EJW), and 3 on Oct. 23rd (MMS). Also 1 by Medina on Jan. 14th (LK).
- 156 **Green Sandpiper.** One in Brading Marsh on Aug. 18th, 19th, and 25th (JKB, GHR) and one at Newtown on Aug. 20th (MMS).
- 157 **Wood Sandpiper.** 2 in Brading Marsh on Aug. 12th, and 1 there on 18th, 19th, and 26th (JKB, GHR).
- 159 **Common Sandpiper.** First at S.C.P. on April 22nd (RB, AS, EW, EJW).  
C. 6 remained at Newtown throughout the summer (MMS).
- 161 **Redshank.** C. 350 by Medina on Oct. 7th (LK)—many more than usual.
- 162 **Spotted Redshank.** One at Newtown on July 8th and 12th (MMS). 1 in Brading Marsh on Aug. 12th, and 2 there on Aug. 19th (JKB, GHR). 1 at Foreland on Aug. 26th (AA, JKB, GHR).
- 165 **Greenshank.** 14 at Newtown on Aug. 17th (MMS).
- 169 **Knot.** Largest flocks at Newtown were c. 200 on Jan. 29th, and c. 120 on Dec. 2nd (MMS).
- 171 **Little Stint.** Recorded only at Newtown: 1 on Feb. 2nd, 2 on July 6th, and 1 on July 29th (MMS).
- 178 **Dunlin.**

- 179 **Curlew Sandpiper.** Also recorded only at Newtown: 3 on Aug. 20th and 31st (MMS).
- 181 **Sanderling.** 26 at Foreland on Aug. 6th and 97 in Brading Harbour on Dec. 29th (JKB, GHR). Very few are recorded away from this Bembridge area—*e.g.*, at Newtown 3 on April 29th (AS, EJW), and 2 on July 29th (EJW).
- 184 **Ruff.** One in Brading Marsh on Dec. 29th (JKB, GHR).
- 193 **Arctic Skua.** 23 recorded [and 6 other unidentified skuas] at S.C.P. in April, May, Aug., and Sept. (m.o.). Also 1 off East Cowes on April 19th (JS) and 1 off Ryde on Aug. 19th (JKB, GHR, WHT, EJW). All except 2 were flying E.
- 194 **Great Skua.** 20 flew E. past S.C.P. between April 7th and May 19th—maximum of 7 on April 19th (m.o.). One off East Cowes on April 27th (JS). The only autumn record was one at Foreland on Aug. 6th (JKB, GHR).
- 195 **Pomarine Skua.** A dark phase adult flew N. past Foreland on Aug. 6th (JKB, GHR). Details supplied.
- 198 **Great Black-backed Gull.**
- 199 **Lesser Black-backed Gull.**
- 200 **Herring Gull.** A yellow-legged adult, presumably of the Scandinavian form *Larus argentatus omissus*, at Foreland on Aug. 18th (JKB, GHR).
- 201 **Common Gull.** 40 in Osborne Bay on July 28th (MMS).
- 203 **Iceland Gull.** An immature flew S. from Watershoot Bay on April 8th (DBW).
- 208 **Black-headed Gull.** C. 700 in the winter roost at Newtown (MMS). 55-60 pairs nested in four separate sites there (m.o.).
- 211 **Kittiwake.** Numerous records at S.C.P.: 2 on Jan. 13th; 113 between March 25th and May 26th (nearly all moving E.), including 53 on April 20th; 14 between Aug. 5th and Oct. 28th (m.o.).
- 212 **Black Tern.** Five single birds recorded: Flying E. past S.C.P. on April 23rd (RB, AS, EW, EJW), at Newtown on June 16th (MMS), at Bembridge on Aug. 12th, and flying S. past Foreland on Aug. 18th and 25th (JKB, GHR).
- 217 **Common Tern.**
- 218 **Arctic Tern.**
- 222 **Little Tern.** One or two pairs nested at Newtown, but without success (m.o.).
- 223 **Sandwich Tern.** First recorded on March 29th at S.C.P. (EW). Peak movements there were 250 to E. on April 19th and 128 to E. on April 23rd (m.o.).  
One or two seen throughout the summer at Totland Bay (JS)—presumably from the mainland nesting area near Hurst.
- 224 **Razorbill.**

- 226 **Little Auk.** One arrived at S.C.P. from W. on March 28th (EW).  
 227 **Guillemot.**  
 230 **Puffin.** Largest number recorded at the Needles breeding locality was 5 on May 26th (JS).  
 232 **Stock Dove.**  
 234 **Woodpigeon.**  
 235 **Turtle Dove.** A late record at S.C.P. on Oct. 27th (EW, EJW).  
**Collared Dove** (*Streptopelia decaocto*). One at Totland on June 24th (KMBH, JS) was the first recorded in the Island. Although it was in an apparently typical nesting habitat—Scots Pines in a garden adjoining the scrub of Headon Warren—it was not seen again.  
 237 **Cuckoo.** First on April 10th, at S.C.P. (EW, EJW) and Shalfeet (RBMcI).  
 241 **Barn Owl.**  
 246 **Little Owl.**  
 247 **Tawny Owl.** Heard several times at Newtown (MMS).  
 249 **Short-eared Owl.** One at S.C.P. on Oct. 13th and 27th (EW, EJW). One on Headon Warren on Oct. 14th (EW) and Dec. 15th (JS).  
 252 **Nightjar.** At mid-morning on Sept. 8th one settled on a window ledge of a house near the centre of Sandown (LK).  
 255 **Swift.** First on April 18th, at S.C.P. (JHT, EW)—probably the earliest in Britain (see *Bird Migration*, vol. 2, p. 147).  
 256 **Alpine Swift.** One at S.C.P. from early morning to dusk on May 13th (RB, IMcP, DP, MT, JS, EJW), but could not be found next day (MMS). The first record for the Island. (See *British Birds*, vol. 56, p. 402).  
 258 **Kingfisher.** On Jan. 3rd one was seen continually diving at another Kingfisher floating dead on the Medina at Newport (DDD). (See *British Birds*, vol. 55, p. 240).  
 261 **Hoopoe.** 2 near Sandown Waterworks, May 2nd and 13th (WWW). One at Shanklin, May 12th-20th (JMC, AJH).  
 262 **Green Woodpecker.**  
 263 **Great Spotted Woodpecker.**  
 271 **Woodlark.** One at S.C.P. on April 28th (MMS).  
 272 **Skylark.**  
 274 **Swallow.** First 5 on April 17th at S.C.P. (JHT, EW)—rather later than usual, but there were numerous records elsewhere in the next two days (m.o.).  
 Heaviest passage at S.C.P. was on Sept. 15th, when c. 12,000 left to S.E. (EW, EJW).  
 276 **House Martin.** First at Shorwell on April 22nd (JS).  
 Heaviest passage at S.C.P. was same as Swallow, *i.e.*, c. 12,000 left to S.E. on Sept. 15th (EW, EJW).  
 On May 6th about 12 were flying over a choppy sea at Shanklin taking food from surface (EMN).  
 Last on Dec. 2nd at Newtown (MMS).

- 277 **Sand Martin.** First at Brading on April 12th (JMC).
- 279 **Raven.** The only record this year was one near the Needles on May 26th (JS).
- 280 **Carriion Crow.**
- 281 **Hooded Crow.** One by the railway between Wootton and Newport on July 20th (PP).
- 282 **Rook.**
- 283 **Jackdaw.**
- 284 **Maggpie.**
- 286 **Jay.**
- 288 **Great Tit.**
- 289 **Blue Tit.**
- 290 **Coal Tit.**
- 292 **Marsh Tit.** Nested near Mottistone Mill, Brighstone (DF).
- 293 **Willow Tit.** A pair at Osborne on April 26th (MMS).
- 294 **Long-tailed Tit.**
- 296 **Nuthatch.** Seen several times at Osborne (MMS).
- 298 **Treecreeper.**
- 299 **Wren.**
- 301 **Mistle Thrush.**
- 302 **Fieldfare.**
- 303 **Song Thrush.**
- 304 **Redwing.**
- 307 **Ring Ouzel.** S.C.P. : 5 on Oct. 13th, 22 on Oct. 14th (EW, EJW), and 5 on Oct. 28th (EW, EJW). Alum Bay area : 12 on Oct. 14th and 1 on Oct. 27th (EW). Brighstone Down : 1 on Oct. 13th (JS). No spring records.
- 308 **Blackbird.** In Jan.- March was very numerous at various places in Sandown area—predominantly ♂♂ (LK).
- 311 **Wheatear.** First on March 11th at S.C.P. (EJW). 2 with Pied Wagtails (q.v.) at Sandown on Oct. 3rd (LK).
- 317 **Stonechat.** Nested at Compton Bay and Headon Warren (JS); a juvenile on Tennyson's Down on June 9th (BWR) means that nesting probably occurred there, too (it was not one of the Headon Warren young, which were still near their nest at least a week later).
- 318 **Whinchat.** First at Newtown on April 5th (MMS).
- 320 **Redstart.** A pair seen between Newtown and Clamerkin Bridge several times from June 10th onwards; although material was being gathered no nest could be found (MMS, JS).  
First at Brighstone on April 13th (JS).
- 321 **Black Redstart.** Seen near Alum Bay on Oct. 27th (EW) and Nov. 15th (JS).
- 322 **Nightingale.** First on April 21st at Brading (JMC).
- 325 **Robin.** Ringing recovery : a first-winter bird, AB59564, ringed at Portland Bill Bird Observatory on Sept. 19th, 1961, was found dead at Cowes on Jan. 13th (TWAY); it had apparently flown against a greenhouse.

- 327 **Grasshopper Warbler.** First on April 18th at S.C.P. (JHT). Several in frequent song in Brighstone Forest area in May and June (JS, AS, EW, EJW). They were presumably nesting, but in a habitat very difficult to search. There have been previous similar occurrences elsewhere in this area (see *Reports* for 1954-56), but as each locality goes through the sequence of felling, clearing, and replanting it only remains suitable for nesting for a few years before the growth of scrub causes the birds to seek new sites.
- 333 **Reed Warbler.** For the first time for some years a nest was found at Priory Fields, Carisbrooke, where the reed-beds have been largely spoiled by recent development. The nest was attached to reeds and Willow Herb, which grew at different rates and tipped it over to a large angle, but young were successfully reared (RJM).
- 337 **Sedge Warbler.** First on March 26th at S.C.P. (EW).
- 338 **Aquatic Warbler.** One at Newtown on Oct. 7th (CJC). (See *British Birds*, vol. 56, p. 404).
- 343 **Blackcap.** The ♂ at St. Lawrence at the end of 1961 (see 1961 *Report*) was seen frequently until Jan. 11th (RBMcI).
- 346 **Garden Warbler.** First on April 10th at Alverstone (JMC).
- 347 **Whitethroat.** First on April 18th at Whippingham (JS).
- 348 **Lesser Whitethroat.** One at Ventnor on April 24th (MJSS). S.C.P. : 4 on April 25th and 1 on 26th (MWB, JSi) ; 4 on May 12th (RB, EJW) ; 1 on May 20th (MMS) ; 2 on Sept. 22nd (EJW).
- 352 **Dartford Warbler.** Nesting localities (which as usual must be kept secret, but the letters correspond to those used in earlier *Reports*) :—  
 Locality B. A ♂ present in May and June (BWR, JS).  
 Locality E. 2 pairs located in nesting season (KMBH, JS). Also 1 bird twice in Oct. (EW).  
 Locality H. One on May 30th in a new locality (AJH, MMS).
- 354 **Willow Warbler.** First on April 7th at S.C.P. (DC).
- 356 **Chiffchaff.** First on March 11th at S.C.P. (EJW), and last on Oct. 14th at S.C.P. and Alum Bay (EW).
- 364 **Goldcrest.**
- 365 **Firecrest.** One at S.C.P. on May 6th (AJH, EJW).
- 366 **Spotted Flycatcher.** First on May 7th at Ryde (AJH) and Osborne (JS).
- 368 **Pied Flycatcher.** 2 at Shanklin at end of April (EMN). A ♂ at Newtown on June 14th (MMS). 2 at Brighstone on Sept. 2nd (JS).
- 370 **Red-breasted Flycatcher.** A ♂ at Shanklin on May 7th (EMN). Details supplied.
- 371 **Hedge Sparrow.**

- 373 **Meadow Pipit.**
- 376 **Tree Pipit.** Recorded only on migration. 2 at St. Lawrence on April 25th (MJSS). S.C.P. : 2 on April 19th (JHT, EW), 7 on Aug. 19th (AS, WHT, EJW), 3 on Aug. 26th (WHT, EJW), 1 on Sept. 8th and 5 on Sept. 15th (WHT, EW, EJW).
- 379 **Rock Pipit.**
- 380 **Pied Wagtail.** C. 100 (and 2 Wheatears) spent the whole of Oct. 3rd on Brown's Golf Course, Sandown, their migration being held up by sea fog (LK).
- 381 **Grey Wagtail.**
- 382 **Yellow Wagtail.** First at S.C.P. on April 1st (LK).
- 389 **Starling.** Ringing recoveries : 27675X ringed at Sandown on June 4th, 1961 (LK), was shot at Tovil, near Maidstone, Kent, on June 27th, 1962 ; 27983X ringed at Sandown on July 24th (LK) was found dead at Ryde on Nov. 13th.
- 392 **Greenfinch.** Ringing recoveries : Of two ringed at Sandown on Jan. 19th (LK), 27820X was found dying at Cowes on March 5th (GJL), while 27821X was trapped and released at Swalecliffe, near Whitstable, Kent, on April 28th.
- 393 **Goldfinch.**
- 394 **Siskin.** One at Nettlestone on Jan. 28th (JR). One flew W. along Main Bench on Oct. 27th (EW).
- 395 **Linnet.**
- 397 **Redpoll.** 7 flew W. past S.C.P. on Oct. 27th (WHT, EW, EJW).
- 401 **Bullfinch.**
- 404 **Crossbill.** The two irruptions into Britain in 1962 (the first beginning at the end of June and the second at the end of Sept.—see *Bird Migration*, vol. 2, pp. 252-260) included numerous occurrences in the I.O.W. C. 10 at Totland Bay on July 1st, which had increased to c. 30 by July 3rd (KMBH). C. 12 at Shanklin on July 5th (JEC). 25-30 at Brighstone on July 27th [and possibly for the previous two weeks] and about the same number at Brook on July 28th and 29th (DF). 7 flew W. at Newtown on Aug. 7th (EW). 11 at Foreland on Aug. 12th (JKB, GHR). S.C.P. : 1 flew W. on Sept. 15th and 16th, 1 present on Oct. 13th (EW, EJW), and 5 on Oct. 27th (WHT, EW, EJW). 11 flew W. past Main Bench on Oct. 27th (EW). 1 at Ryde on Nov. 10th (EC).
- 407 **Chaffinch.**
- 408 **Brambling.** 3 at Shanklin on Jan. 6th (AJH). 2 by Medina on Jan. 14th (LK). 3 at Osborne on March 31st (AJH). 30 flew W. along Main Bench on Oct. 27th (EW). A ♀ at Bembridge on Nov. 4th (AJH). 2 at Newtown on Dec. 8th (MMS).
- 409 **Yellowhammer.**

- 410 **Corn Bunting.** One at Newtown, Feb. 17th-19th (MMS, EW, EJW). One in Brading Marsh on June 11th (JMC). 4 near Yafford on July 8th (JMC, RJM).
- 415 **Girl Bunting.** A ♂ heard frequently, and occasionally seen, at Osborne from March to July (AJH, MMS, JS).
- 421 **Reed Bunting.** A ♂ in an apple tree near the centre of Sandown on March 14th (LK), and a ♂ feeding in a Newport garden on April 30th (RJM).
- 423 **Snow Bunting.** 30-40 at Shanklin on Jan. 1st (EMN). At Newtown, 2 on Oct. 27th (MMS) and 28th (JMC, RJM), 4 on Oct. 29th and 2 on Nov. 1st (MMS).
- 424 **House Sparrow.**
- 425 **Tree Sparrow.** A pair with young at Calbourne on June 27th, and 3 in a different Calbourne locality on July 13th (MMS). A flock of 14 arrived at S.C.P. from W. on Oct. 13th, and 11 were there next day (EW, EJW). 1 flew W. past Main Bench on Oct. 27th (EW). 3 at Brighstone on Dec. 30th and 31st (JS).

# THE EARLIEST RECORD OF THE BLACK-TAILED GODWIT IN THE ISLE OF WIGHT.

By J. STAFFORD.

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Although Black-tailed Godwits are now often seen in the Isle of Wight, it has not always been so. There has been a considerable increase in both frequency of records and numbers of birds, not only here but over the whole country.<sup>1 2</sup>

The earliest Island records known to me were in 1936, when K. D. Smith<sup>3</sup> saw one on May 10th, and eight on May 24th, at Newtown. One shot at Yarmouth in October, 1938, was recorded by Jeffery<sup>4</sup> as a new species for the Island, but he was obviously unaware of the occurrences in 1936; his error was pointed out by Poole.<sup>5</sup> Morley and Price<sup>2</sup> in stating that "the Isle of Wight had its first record in 1938" were presumably quoting Jeffery's record, but they must have overlooked both the 1936 records and Poole's correction of Jeffery's note. More recently Cohen<sup>6</sup> has quoted the same 1938 record from Morley and Price as the earliest.

The purpose of this note is to draw attention to the 1936 records before the 1938 one becomes too firmly established as the earliest.

<sup>1</sup> Averil Morley. *The Black-tailed Godwit in the British Isles, 1890-1937.* *British Birds*, vol. xxxiii (1939-40), pp. 98-104.

<sup>2</sup> Averil Morley and K. L. H. Price. *The Black-tailed Godwit in Great Britain and Ireland, 1938-1952.* *British Birds*, vol. xlix (1956), pp. 258-267.

<sup>3</sup> F. C. R. Jourdain. *Ornithological Report for the County of Hampshire, 1936.* *Proc. Hants Field Club and Arch. Soc.*, vol. xlii, Pt. 3 (1937), pp. 271-281.

<sup>4</sup> H. G. Jeffery. *A bird new to the Isle of Wight.* *PIWNHAS*, vol. iii, Pt. 1 (1938), p. 92.

<sup>5</sup> H. F. Poole. *Birds recorded in the Proceedings of the Hampshire Field Club.* *PIWNHAS*, vol. iii, Pt. 2 (1939), pp. 142-144.

<sup>6</sup> E. Cohen. *Birds of Hampshire and the Isle of Wight.* 1963.

## ISLE OF WIGHT FINDS IN THE HAZZLEDINE WARREN COLLECTION.

By G. C. DUNNING, F.S.A.

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It may be of use to those interested in the prehistory of the Isle of Wight to know that the late Mr. S. Hazzledine Warren, F.G.S., bequeathed his extensive collections to the British Museum. They have been divided between the Department of Palaeontology and the Department of British and Medieval Antiquities. The archaeological material, comprising flint implements and pottery from many sources, is housed in the latter Department, where it is arranged in stacks of drawers and in cupboards according to localities, and so readily accessible. Mr. Warren's catalogue of this part of his collection is also kept in the Department.

Mr. Warren, whose reputation in Pleistocene geology and in prehistory was international, visited the Isle of Wight between 1899 and 1904. His field-work and collecting were limited to the western end of the Island, in the region of Freshwater, Alum Bay, and Totland. The discoveries he made relate to some of the major periods of prehistory, and will be briefly referred to in chronological order.

The artifacts found in drift deposits on West High Down and Headon Hill belong to the older palaeolithic cultures. Those from High Down appear to be mainly Clactonian, that is, flake-tools and cores used as choppers, but devoid of hand-axes.<sup>1</sup> The name was later given to this culture by the Abbé Breuil,<sup>2</sup> based on Mr. Warren's famous discoveries in the Pleistocene deposits on the Essex coast. His finds in the Isle of Wight were thus among the earliest known in this country. Acheulian hand-axes and Levallois cores and flakes were also found by Mr. Warren on High Down and in the terrace gravels of the Western Yar.<sup>3</sup>

Surface finds of the neolithic period were also made by Mr. Warren in the course of his walks in West Wight. He was always very ready to allow others to study and publish his finds, and of these the late Hubert F. Poole included flint picks and axes in his papers in our *Proceedings*.<sup>4</sup>

The Bronze Age is represented by two pots found in a gravel pit near Afton Farm, Freshwater; apparently they came from a barrow destroyed by the digging. The pots belong to different periods, and so may represent the primary and later burials. One is an open bowl with incised linear decoration, already published in these *Proceedings*,<sup>5</sup> and the other is a small plain tripartite urn.

<sup>1</sup> *Geol. Mag.*, 1900, 406-12, and 1902, 97-105.

<sup>2</sup> *Préhistoire*, I (1932), 125-90.

<sup>3</sup> *Proc. Geol. Assoc.*, 18 (1903), 96.

<sup>4</sup> *PIWNHAS*, I (1929), 655, and II (1930), 28-33.

<sup>5</sup> *Ibid.*, II (1933), 293.

Another of Mr. Warren's preoccupations is also illustrated by examples from the Island. In the course of his career he made an intensive study of the flaking of flint by natural agencies, such as soil-creep and sub-glacial pressure. He was, in fact, one of the chief protagonists in the long and bitter controversy over the so-called eoliths, and certain flints from the Pliocene and even earlier deposits of East Anglia. These chipped stones, formerly alleged to be the work of man, are now finally recognised as due to natural causes. Latterly Mr. Warren again referred to an instance of an edge-chipped flint with its original butt-stone, which he had obtained over twenty years before on High Down.<sup>1</sup> A similar association, this time of an edge-chipped flake still in place against its parent nodule, was found by the writer when excavating a round barrow on St. Catherine's Hill, Niton, in 1925. The flake, converted into a "scraper" by high-angle secondary flaking along the edge, provided the theme for a paper by Mr. Warren, who described it as an admirable example of the forces of nature producing a selective result.<sup>2</sup>

Dr. Kenneth Oakley has published an incisive account of the life and work of Hazzledine Warren, with a list of his published papers, in the *Essex Naturalist*, vol. 30 (1959), pp. 143-61. As one of many to whom Mr. Warren showed great kindness I am glad of this opportunity to express my gratitude to him for much help and encouragement, and not least for sound instruction in the ways of both man and nature in flint flaking.

<sup>1</sup> *Proc. Geol. Assoc.*, 34 (1923), 160-2.

<sup>2</sup> *Proc. Univ. Bristol Spelaeol. Soc.*, 2 (1925), 304.

## METEOROLOGICAL REPORT FOR 1962.

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In his report for 1962 Mr. H. Hoare, Meteorological Officer for Shanklin, describes it as "not a year one could enthuse over." Several records were broken, mainly involving temperatures. The one outstanding weather event occurred right at the end of the year with a blizzard from 1700 hours on 29th December to the early hours of 30th December, with drifts in places on the outskirts of Shanklin up to twenty feet deep. It was not a good year for sunshine, with a total of 1919.9 hours, though there have been many worse years. Rainfall of only 28.73 inches was low, but it does not bear comparison with the 1953 total of only 24.68 inches. Temperatures have been consistently low, and with nine consecutive months with a below-average mean temperature it is perhaps understandable that 1962 was the coldest year on record. Referring to such descriptions of the summer as "the worst ever," Mr. Hoare writes: "We tend to set our sights too high, remembering the perfect summer of 1959, and expecting all succeeding ones to be comparable. The brutal fact is that we get an exceptional summer on average every four to five years, and the heartening thought is that we are due for another one in the not too distant future."

Mr. Hoare goes on to say that the summer months, June to September, were certainly colder, with more wind than usual, but sunshine and rain were both near average. Sunshine for the four months totalled 918.6 hours against an average of 926.1 hours. Rainfall was 9.32 inches, just  $1\frac{1}{4}$  inches less than the 26-year average of 10.54 inches. Though there were no prolonged spells of warm, sunny weather, there were many days with near maximum sunshine.

Monthly summary:—

### JANUARY.

The Arctic freeze-up from the last week of December, 1961, continued for the first five days of January. The temperature then rose sharply and for the last 26 days maximum screen recordings were consistently near the 50° mark with, consequently, an above-average mean temperature. Rainfall was slightly above and sunshine 14 hours below average. Sleet was recorded on the 30th and 31st.

### FEBRUARY.

A pleasant, sunny month, with only .59 inches of rain. Slight falls of snow on the 13th, 25th, and 26th.

### MARCH.

The coldest for many years, with a mean temperature of only 38.5°, over 5° below the average. As in the previous month, sunshine was above and rainfall below average. There were eight recordings of snow, but all were very minor flurries.

## APRIL.

Another cold but sunny month. Although rainfall was normal, the cold drying winds following a dry February and March nullified any benefit from the rain, leaving the earth with a very dried-up appearance.

## MAY.

A month of very variable weather, the first six days wet, an absolute drought from 7th to 27th, and a few decidedly cool nights with a real danger of frost. The persistent, dry easterly winds again nullified any benefit from an average rainfall of 1.47 inches. It was the coldest May on record, and sunshine was 50 hours below the average.

## JUNE.

Certainly not "flaming"—in fact, the coldest on record. Rainfall of only .37 of an inch was the lowest recorded in June for 21 years. Sunshine was well above average, and the surplus of 50 hours offset May's deficit.

## JULY.

A reasonably pleasant month. Rather cool and cloudy, with a low rainfall total and below-average sunshine.

## AUGUST.

A frustrating month with above-average winds and the occasional sunny day that seemed to promise a prolonged warm spell which, unfortunately, did not materialise. Mean temperature, sun, and rain were all below average. The month was made memorable with the recording of the wettest bank holiday on the books.

## SEPTEMBER.

Patchy weather. The month opened with some warm, sunny days which were not maintained. Rainfall was light up to the 26th, but heavy downpours during the remaining four days, when two inches were logged, brought the total up to 3.54 inches. Sun was fair, being eight hours above the average. Temperatures were again below normal—the eighth consecutive month that this had happened, and constituting a record.

## OCTOBER.

There was a drought from the 3rd to the 23rd, a rare occurrence so late in the year. Rainfall was well below average, with only 2.59 inches—the driest since 1951. The sunshine total of 155 hours was the third highest for October.

## NOVEMBER.

A wide variation in weather, and some long-outstanding records went by the board. An unusually cold spell in the middle of the month brought the mean temperature down to 44.3°. Rainfall was only

2.90 inches, well below the 4.63 inches average. Sunshine, with a total of 46.2 hours, was easily a low record and barely half the average. Another record established was the absence of any sun recording whatsoever for nine consecutive days.

#### DECEMBER.

An amazing month with extremes of temperature and sunshine, and exceptionally varied weather. Rainfall was moderate right up to the 25th with 16 rainless days and a high sunshine total of over 100 hours, averaging over four hours daily. Then, as in 1961, an Arctic spell set in, with day temperatures as low as 32° and night temperatures down to 23°. A blizzard on the 30th brought snowdrifts up to 20 feet deep, and many roads were impassable to traffic.

#### 1962 WEATHER AT SHANKLIN.

Month	Temperatures		Dry	Wet	Rainfall inches	Sunshine hours
	Extremes					
January	51	23	42.7	41.3	4.50	57.2
February	54	28	40.3	38.6	.59	100.4
March	54	22	38.8	37.0	1.71	154.7
April	66	32	46.9	44.5	1.74	175.2
May	60	34	51.0	48.6	1.91	203.9
June	70	39	57.4	54.2	.37	312.7
July	70	48	60.7	57.6	1.30	203.9
August	69	46	60.6	57.4	4.11	221.6
September	69	40	57.4	55.2	3.54	180.4
October	65	34	53.2	51.7	2.59	155.0
November	58	28	44.7	43.2	2.90	46.2
December	54	23	39.0	37.6	3.47	108.7
					28.73	1919.9



