

Vol. I.

Part IX.

**PROCEEDINGS
OF THE
ISLE OF WIGHT
NATURAL HISTORY
AND
ARCHÆOLOGICAL SOCIETY
FOR 1928.**

**Copies may be obtained from the Hon. Secretary,
or from the publishers, price 3/-, post free.**

**Isle of Wight:
THE COUNTY PRESS, NEWPORT.**

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LIST OF OFFICERS.

(Elected at the Annual General Meeting, 19th January, 1929).

President :

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Thursford, East Cowes.

Vice-Presidents :

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J. DOVER, M.A., F.R.Met.Soc., Totland Bay.
R. H. FOX, Shanklin.
J. M. GOODALL, M.B.O.U., Bembridge.
J. GROVES, F.L.S., Freshwater Bay.
REV. J. C. HUGHES, B.A., Shanklin.
PROF. E. B. POULTON, M.A., D.Sc., F.R.S., St. Helens.

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Secretary and Editor of Proceedings :

MISS C. MOREY,
Wolverton, The Mall, Newport, I.W.

Assistant Secretary :

JAS. F. JACKSON, F.G.S., Newport, I.W.

Treasurer :

FRANK E. SNOW,
Ingleside, Mount Pleasant Road, Newport, I.W.

(Publications sent in Exchange should be addressed to the Secretary as above).

NEW MEMBERS.

The following list gives the names and addresses of all candidates elected to the Society during 1928.

Ashfield, A., M.P.S., High Street, Shanklin.
Barton, J. C. S., F.R.H.S., Alexandra, Alexandra Road, Cowes.
Barton, Miss M. F., Alexandra, Alexandra Road, Cowes.
Billen, Miss E. E., 57 St. Mary's Road, Cowes.
Burgess, H. E., C.B.E., Norton Corner, Yarmouth, I.W.
Burgess, Mrs. M. H., Norton Corner, Yarmouth, I.W.
Carver, Mrs. F. E., Wolverton Manor, Shorwell.
Colenutt, Mrs. G. W., Hanway Lodge, Belvedere Street, Ryde.
Day, D., The Croft, Bonchurch.
Day, Mrs. D., The Croft, Bonchurch.
Foster, Mrs. A. W., Yard's Hollow, Limerstone.
Fuller, Dr. S. R., L.H.D., Pannells, Freshwater Bay.
Holmes, F. A., J.P., F.R.G.S., Spring Gardens, Buxton.
Jones, B., 30 High Street, Cowes.
Massingham, Miss E. S., Eventide, Gurnard.
May, Miss K. B., St. George's, Mill Hill Road, Cowes.
Miller, Miss D. B., M. Incorp. Soc. Authors, Repton, 2 Ratcliffe Avenue, Ryde.
Moffett, Mrs. L. G., B.Sc., Shide House, near Newport.
Parker, H. J. W., F.A.I., Keila, Arcot Road, Sidmouth, Devon.
Pratt, Miss E. W., M.B.E., L.L.A., Redryffe, Madeira Road, Ventnor.
Pratt, The Rev. R., M.A., The Rectory, Freshwater.
Pratt, Mrs. K., The Rectory, Freshwater.
Roberts, Mrs. M., Powys House, East Cowes.
Rygate, Dr. J. R., East Cowes.
Sleep, Mrs. C. A., Westminster Bank, Newport.
Tarbat, The Rev. J. E., M.A., The Rectory, Calbourne.
Wells, Mrs. M., Prior's Cottage, Brighstone.
Whitman, Miss L. E., 5 Castle Terrace, Castle Road, Cowes.
Woodyear, A. B., Castle Mount, Cowes.
Wynne, J. F., Deepdene, Victoria Avenue, Shanklin.

EDITORIAL.

It is gratifying to be able to report that the steady progress of the Society was maintained through 1928, the total number of members now standing at 290. As the long-desired goal of a membership of 300 is now so near, there need be no doubt that it can be attained in the present year if some of our more active helpers will make one more effort to enlist their friends.

The most important feature of this issue is Mr. G. W. Colenutt's account of the great cliff-fall and landslide near Blackgang, which took place in July and September, 1928. Although in the ordinary course of our arrangements this paper would not have appeared until next year, so much interest has been aroused by this striking example of geological processes in action that immediate publication seemed desirable. Our best thanks are due to Messrs. Knight, of Ventnor, for kindly allowing the reproduction of the unique photographs showing the fall actually in progress.

The fragment from the town accounts of Yarmouth transcribed and annotated by the Rev. J. C. Hughes, throwing some light on a hitherto unpublished episode of King Charles I's retirement to the Island, will appeal to all who are interested in the local history of that period.

The work of recording the fauna of the Island has been continued by Mr. H. G. Jeffery, whose long list of additions to the Lepidoptera will be appreciated by entomologists.

Prof. E. B. Poulton's report on the appearance in the Island of the dreaded Dutch elm disease will be read with alarm and regret by all lovers of one of the most characteristic and beautiful trees of our countryside. It is to be hoped that some members will make a point of watching the course of the disease and communicating their observations to the Editor.

Mr. J. F. Jackson contributes a supplementary list of Eocene and Oligocene fossils which have been added to the Museum of Isle of Wight Geology in the Free Library at Sandown since 1925. A catalogue of the Upper Cretaceous fossils is in preparation and it is hoped to publish this next year. The number of species of local fossils in the Museum now amounts to over 1200.

The Nature Study and Archæological Notes will be found to include several items of rather special interest, and it is greatly to be hoped that members will assist the Editor by sending in full and prompt reports of their observations and discoveries. A description of the hoard of Roman coins found in Castle Road, Ventnor, during the late summer of 1928, should have appeared in the present issue, but has had to be held over because of unforeseen delays.

CATHERINE MOREY.

Newport, Isle of Wight.
July, 1928.

GENERAL MEETINGS, EXHIBITIONS, AND EXCURSIONS.

Annual General Meeting held in the Lecture Hall of the Literary Society, Newport (Headquarters), at 3 o'clock on Saturday 21st January, 1928.

The President, Mr. R. H. Fox, in the chair.

The minutes of the last Annual General Meeting were read and confirmed.

The Secretary read a report on the work of the Society in 1927. The year began with a membership of 250, and during the year 60 candidates were elected, 28 members resigned, and three, Miss L. E. Spencer Edwards, Lieut.-Col. S. Smith, and Mr. W. Badcock, were removed by death; so that the membership now stood at 279, a gain of 29 over the previous year. The figures were decidedly encouraging, but it remained highly important that all members should do their best to bring in recruits.

The number of meetings held was the same as in 1926, and the attendances had been very satisfactory; the excursion to Carisbrooke Castle and the exhibition at Shanklin were especially successful and well attended.

The Society was represented by the Secretary at the Congress of the S.E.U.S.S., held at Hastings in June.

Part VII of the Proceedings, for 1926, was published in November.

The Museum of Isle of Wight Geology, in the Free Library at Sandown, continued to receive attention and a number of interesting fossils had been added to the collection.

The Sub-Committee appointed to supervise the Botanical Survey had divided the Island into a number of areas, based as far as was practicable on geological structure, and several observers had commenced to record data.

The adoption of the Secretary's Report was moved by the President and carried.

The Treasurer reported that the year began with a balance of £91 5s. 9d.; that subscriptions amounted to £50 10s.; donations £6 6s.; dividends (less tax) £10; and sale of Proceedings £1 17s. 6d., making a total of £159 19s. 3d. Expenditure was as follows: Printing and stationery £7 14s. 9d.; postages £4; printing Part VII of Proceedings £30 3s. 6d.; various expenses £2 8s. 11½d., leaving a balance of £109 12s. 0½d.

The adoption of the Treasurer's Report was moved by the President and carried.

Four members of the Council having retired, the following were elected to take their place: Mrs. G. A. Garfitt, Instr.-Capt. A. J. Parish, Mr. G. A. Sherwin, and Miss M. K. C. Tallent.

The Officers, as recommended by the Council, were re-elected.

The President, after expressing his satisfaction at the flourishing condition of the Society, gave a most interesting address on Birds and their Nests, in which he described the remarkable nesting habits of certain species and the great pains taken to insure protection and concealment of the nest and eggs. He commented on the great beauty and durability of the nests constructed by some birds, and contrasted these with the frail and loosely heaped together apologies for nests which satisfied others.

General Meeting held on Saturday 4th February, 1928.

The President, Mr. R. H. Fox, in the chair.

Sir Frederick W. Black, K.C.B., B.A., delivered a most able and interesting address on the Isle of Wight and the Ancient Tin Trade, in which he summarised the long-standing controversy as to whether, in pre-Roman times, tin was brought from Cornwall to the Isle of Wight for export to the Continent, and concluded that no evidence existed to show that tin was ever shipped from the Island, except possibly on rare occasions after about 56 B.C., when Southampton became a depot for its export. The problem of the date and manner of the separation of the Island from the mainland was stated at some length, and it was concluded that Wight became an island long before historical times.

Sir Frederick Black's lecture was printed as a paper in Part VIII of the Proceedings, for 1927, publication having been hastened on account of the great local interest of the subject.

General Meeting held on Thursday 23rd February, 1928.

The Rev. S. W. Sutton, M.D., B.S., in the chair.

Mr. J. Groves, F.L.S., lectured on the story of our *Spartina*, describing the characteristic features of the Cord-grasses; the remarkably interesting history of the presumed hybrid, *S. Townsendii*, now so conspicuous in the Solent and elsewhere; and the utility of *Spartina* as an agent in the reclamation of tidal mud-flats.

This paper was also published in Part VIII of the Proceedings.

General Meeting held on Saturday 17th March, 1928.

The Rev. J. C. Hughes, B.A., in the chair.

Mr. G. A. Sherwin read an instructive paper on Romano-British pottery, treating a highly technical subject in a lucid and interesting manner, and describing the special features characteristic of the principal wares and outlining their history and sequence. He remarked that the potter's craft was not new in Britain when the Romans arrived, as from Neolithic times successive waves of invaders had brought with them their own peculiar styles of pottery, so that, as might be expected, for some time after the Roman conquest Roman wares were used side by side with native products surviving from an earlier culture.

The Lecturer, in speaking of British pottery made shortly before the Roman invasion, described the Aylesford type, a hard, well-baked, wheel-turned, black ware which, in south-eastern England, dated from the 1st century B.C. and lasted into Roman times; in Belgic Gaul, whence it reached us, it was known as early as the 3rd or 4th century B.C. Another important type was the bead-rim, typically a globular, flat-bottomed bowl with a narrow rim; in the south-east of England it dated from about 50 B.C. to the second half of the 1st century A.D.

The beautiful red Arretine ware, made in Tuscan from about 150 B.C., was rare in England, but it was important as the precursor of Samian, which began to be manufactured in Gaul about 40 A.D. The earliest Samian was the best, a steady deterioration being apparent until the ware almost died out towards the end of the 3rd century A.D. Samian was frequently stamped with the maker's name, and hence its special importance to the antiquary, as in many cases it was possible to determine within narrow limits the time when the potters worked.

The most distinctive kinds of pottery made in England during the Roman occupation were the Castor and New Forest wares. The former was a dark slip ware ornamented in barbotine; the latter was typically a hard grey stoneware with a purplish or black metallic surface. Castor ware dated from the 2nd century A.D., while the New Forest potteries were active in the 3rd and 4th centuries. The people at Castor lived in houses of Roman style, but the only known example of a potter's dwelling in the New Forest was a mere hut.

The lecture was illustrated by many specimens of the various types of pottery and by outline and sectional drawings of characteristic vessels.

General Meeting held on Saturday 31st March, 1928.

Mr. J. Groves, F.L.S., in the chair.

The Rev. H. M. Livens read a very interesting paper on the Solitary and Social Wasps and Bees of the Isle of Wight.

The Lecturer stated that about 80 species of wasps and above 100 of bees had been found in the Island. He explained the distinctive points in structure and in the habits and modes of life by which the two groups were separable, and then described the wonderful structural adaptations and specialised instincts of some important genera of solitary wasps as exemplified in the marvellous life histories of the diggers, *Pompilus* and *Ammophila*; and also in *Oxybelus*, which presented a striking illustration of aggressive mimicry, the wasp closely resembling the flies on which it preyed. The social wasps were less numerous specifically, but a single large nest might house several thousand individuals living in a highly organised community run on thoroughly co-operative lines.

Bees, of which some 200 species (mostly solitary) occurred in the British Isles, were classified by the shape of their tongues as short-forked, short-pointed, and long-pointed tongues. Many solitary bees constructed very efficient and beautiful nesting places, of which the wonderful structures made by *Colletes* (the Plasterer), *Osmia* (the Mason), and *Megachile* (the Leaf-cutter) were perhaps the most interesting; *Halictus* burrowed in hard ground, forming large colonies, and might be regarded as semi-social; *Prosopis*, a feeble little bee without the pollen-collecting apparatus of the more advanced forms, was of great interest as probably representing the ancestral stock from which the highly specialised social bees have been evolved.

The Lecturer outlined the life-history of the Humble Bee and the structure of its nest, but remarked that a special paper would be necessary to do justice to the Honey Bee.

The lecture was illustrated by many beautiful lantern slides.

Excursion to Godshill, Thursday 12th April, 1928.

Directors : The President and Mr. J. Groves, F.L.S.

The party met in the village and followed the somewhat circuitous route through Godshill Park to Beech Copse. Some time was spent in exploring this variedly beautiful piece of woodland, but, apart from primroses and anemones, few wild flowers were seen, as the season was not sufficiently advanced for many species to be in bloom.

After partaking of tea in the garden of the Griffin Hotel, the members proceeded to the beautiful old church, where Capt. H. A. M. Worsley very kindly spent a considerable amount of time in describing the many objects of historical and antiquarian interest.

The extensive view from the churchyard was greatly admired.

Excursion to Woodside, Wootton, Saturday 28th April, 1928.

Directors : The President and Mr. G. W. Colenutt, F.G.S.

Favoured by summer-like weather a large party met at Wootton Bridge and followed the pleasant road to the shore at Woodside ; here Mr. Colenutt, who had spent the morning in going over the ground to observe features of interest in readiness for the arrival of the visitors, spoke on the local geology. He explained that the rocks belonged to the Osborne Beds and consisted mainly of clays with a little limestone. These strata were formed in fresh or slightly brackish water lagoons, but one thin seam of shaly clay with perfect specimens of a small fish, *Diplomystus vectensis*, and two species of prawns, *Propalæmon*, indicated a temporary invasion by the sea. Thanks to Mr. Colenutt's preliminary search a number of specimens of this interesting little fish and one prawn were speedily collected.

Farther to the west and lower down on the beach was another bed of clay, in which Mr. Colenutt had found many remains of turtles and fishes, but the state of the tide prevented examination ; nearer King's Quay a bed rich in *Chara* " fruits " was seen on the shore close to some slipped blocks of Bembridge Limestone.

Before returning to Wootton for tea the members rested in the shade of some trees overhanging the shore and listened to an interesting talk by the President on the migratory birds frequenting the Isle of Wight.

Excursion to Rowborough Down, Saturday 12th May, 1928.

Director : Mr. G. W. Colenutt, F.G.S.

The party met at Rowborough Farm and walked to Rowborough Down Bottom to view the sites of the alleged " British Villages " which are situated in some of the valleys intersecting the chalk downs. In Rowborough Bottom a number of saucer-shaped depressions in the turf are to be seen, and the object of the excursion was to consider the causes which had led to the formation of these hollows.

The Director called attention to the investigation made in 1856 by the Rev. E. Kell, who claimed that these depressions were the work of ancient man, and were used as dwellings. The whole subject was fully gone into by Mr. Percy Stone, F.S.A., in 1911, and from the evidence of the excavations then made it was concluded that these hollows were of natural formation. The members were reminded that the Chalk is traversed by cracks which permit the rainfall readily to be absorbed by the strata underground. The humic acids in vegetable soil had the effect of slowly dissolving the Chalk, and the situation and direction of the valleys intersecting the downs were determined by the extent to which it had been fractured ; the hollows in the valley

floors marked the tops of the larger fissures which had been widened into funnel-shaped "pipes" leading down into the underlying strata. That probably was the correct answer as to the origin of the depressions, and it was supported by the fact that Mr. Stone's thorough examination failed to elicit any evidence of the hollows having been made by man.

Excursion to Appley Hall, Ryde, Saturday 26th May, 1928.

By kind permission of Sir Hedworth Williamson, Bart., a large party enjoyed the privilege of visiting the beautiful and extensive grounds of Appley Hall.

In the absence of Sir Hedworth Williamson, the members were conducted by the head gardener, who pointed out some of the more interesting plants, drawing special attention to the extensive collection of exotic flowering trees and shrubs; among these the beautiful flowers of several kinds of Rhododendron and Azalea formed glowing masses of colour, while a group of very large palms stood out conspicuously against a background of more familiar types of vegetation.

Bird lovers were greatly interested in the nest, with young, of a Tom-tit that had built within a hollow piece of statuary; from the small size of the opening this curious home must have been both stuffy and gloomy.

Excursion to Shanklin and Luccombe, Wednesday 20th June, 1928.

Directors: The President and Mr. J. E. H. Terry.

The members assembled in the picturesque Old Village and were guided by the President to Greatwoods Copse, where they divided, some ascending the shady path leading to the open summit of Shanklin Down, while others, following a lower path through the Copse, found their way to a lane running up to the top of the downs between Luccombe and Shanklin, where the two parties met and rested awhile to enjoy the fresh breezes and the magnificent view over the greater part of the Island.

The party then skirted the upper edge of Luccombe Copse, a hanging wood well known as the home of some interesting plants, and descended the beautiful combe above Luccombe Chine to the path across Luccombe Common, and so back to Shanklin and Luccombe Hill, the residence of Mr. and Mrs. Terry, where they were entertained to tea by their host and hostess.

Much time was most enjoyably spent in walking round the beautiful garden, rich in uncommon plants and ideally situated on a terraced slope commanding a fine view of Sandown Bay. This pleasant and restful conclusion to a strenuous excursion was highly appreciated by all.

Visit to the Museum of Isle of Wight Geology, in the Free Library, Sandown, and Excursion to Whitecliff Bay, Wednesday 27th June, 1928.

Director : Mr. J. F. Jackson, F.G.S.

The members were received at the Museum by the Joint Curators, Messrs. C. E. Gilchrist, the Rev. J. C. Hughes, B.A., and J. F. Jackson.

After Mr. Gilchrist had outlined the early history of the specimens which had formed the nucleus of the present collection, and referred to the circumstances leading up to its establishment at Sandown, Mr. Jackson explained that the collection was now confined to local specimens; the object being to form a complete set of all the fossils occurring in the varied series of strata for which the Island was famous; the Museum now contained over 1200 species, but much more collecting would have to be done before a completely representative collection could be secured. He emphasised the fundamental importance of full and accurate labelling of specimens, a feature too often sadly neglected in small museums, and stated that every effort had been made to ensure up-to-dateness in nomenclature, an exacting task in which he had received much kind and generous assistance from other geologists; his idea was that the Museum should be a place of reference to which serious students, whether beginners or research workers, could resort in full confidence of not being led astray by preventable errors on the part of those to whom they looked for reliable guidance. Having viewed the collection, which had been rearranged and considerably improved since the Society's previous visit, the members examined the interesting sections, ranging from Wealden to Chalk, in the cliffs north of Sandown and then walked over Bembridge Down to Whitecliff Bay.

After tea some of the party walked along the shore to the end of the Whitecliff to view the impressive section in highly inclined Upper Chalk, the conspicuous lines of flints sweeping up the face of the cliff and truncated at the top by the present surface of the down affording a convincing illustration of the tilting of the rocks and the immense denudation accomplished in geologically recent times.

Excursion to Newtown, Thursday 12th July, 1928.

Directors : The President and Mr. J. Groves, F.L.S.

Members from all parts of the Island met outside the old Town Hall, now unfortunately fast falling into a ruinous condition, where Mr. Groves gave an interesting outline of the eventful history of this once important but now very much decayed borough, and afterwards pointed out the grass-grown sites of some of the streets of the old town.

After visiting the restored Church, the party walked to the meadows bordering the marshy creeks of the Newtown River. Mr. Groves spoke on the flora of our salt-marshes and assisted members to name their finds, and the President gave a most interesting talk on the numerous species of birds frequenting this comparatively out-of-the-way region.

Although the day was very hot a refreshing breeze made walking easy, and the return to Newtown for tea was made early enough to allow time for a pleasant chat in the shade of some trees before the members dispersed to their homes.

Excursion to Shorwell, Saturday 28th July, 1928.

A very numerous party attended this excursion with the object of visiting the interesting old manor houses of West Court and Wolverton (by kind permission of Mrs. Russell and Mr. and Mrs. Carver), and the village Church.

The party met at West Court, where the Secretary read notes compiled from Mr. P. G. Stone's " Architectural Antiquities of the Isle of Wight " (1891), pointing out that this manor, called in early times the Manor of South Shorwell, was in the hands of Gozelin Fitz Azor at the time of Domesday. The manor was early in the possession of the powerful De Insula family, successors to the Fitz Azors. The Robert de Sorewelle mentioned in the charter granted to Newport by Richard de Redvers in the time of Hen. II was no doubt a De Insula, taking his name from his holding, as was usual at that period. In the list of liberties allowed the Countess Isabella de Fortibus, in 1279, John de Lisle (Insula) held land in Shorwell, probably represented by West Court. Barnaby Leigh, son of Sir John Leigh, the builder of North Court, lived here until the death of his father in 1630.

The present house bears traces of three distinct periods of building ; the east wing being of the time of Hen. VIII, the main body that of Elizabeth, and the west wing that of James I. The earliest entrance was in the west wall of the east wing, and the date of the addition of the main body may be taken as about 1579. The projection on the north front containing the present drawing-room was added in the 17th century. As Miss Russell conducted the party through the house the evidences of the different periods of construction and an old cheese-press of simple design and other fittings in the kitchen aroused much interest.

The members proceeded by a pretty path through the withy-bed to Wolverton, where they were received by Mr. and Mrs. Carver. The Secretary again read notes, stating that Wolverton was a manor at the

time of the Conquest, and was held at Domesday, under the title of "Ulwarcumbe," by William, son of Stur, and mention is made of a mill there. From the Sturs the holding came, we may presume by marriage, to an alien, Ralph de Wolverton, who probably took his name from the land and built the first dwelling-house there. The estate came to the Dingley family in the reign of Richard II, and remained with them for 300 years. In the reign of Elizabeth, John Dingley married Elizabeth, heiress of Gregory Hundsford, of Essex, and of their three daughters Elizabeth married Sir John Leigh of North Court, and Mabel Barnabas Leigh, of Wellow.

The present house was erected by John Dingley, according to his contemporary, Sir John Oglander, and the interior fittings and improvements were probably added by his grandson, Sir John, as on the chimney-piece in one of the upper rooms the Dingley arms are impaled with those of Hammond. As in so many houses of the period, the attics were never finished. To the north of the present house stood an earlier dwelling, surrounded by a moat (now drained), probably dating from the 14th century.

Before entering the house a tour was made of the imposing range of old farm buildings, the large and beautiful flower garden, and the moated site of the former house. The members were then conducted over the beautiful old house, special attention being directed to the finely carved chimney-pieces and the Chinese Chippendale staircase, which is believed to be the only example in the Island since the removal of one from a house in St. Thomas's Square, Newport. Tea was provided in the original great hall, a stately apartment which, fortunately, has never been divided up into smaller rooms, and the gratitude of the visitors to their host and hostess was expressed in a hearty vote of thanks proposed by Sir Harry Baldwin, C.V.O.

The members then walked to the Church, where they were received by the Vicar, the Rev. H. Guy, M.A., who pointed out the mid-fifteenth century fresco over the north door depicting the life and martyrdom of St. Christopher; the 15th century pulpit, with canopy dated 1620; a 17th century hour-glass in iron bracket-stand; altar table, dated 1661; the curious pictorial brass to the two wives of Barnabas Leigh, ob. 1615-19; and a fine copy of Cranmer's Bible, printed by Edw. Whitechurch in 1541.

At the kind invitation of the Vicar the visitors were privileged to walk round the Vicarage garden, a beautiful spot commanding a variety of charming views of the adjacent church and village and the distant sea and downs.

Geological Excursion to Alum Bay and Headon Hill, Wednesday 8th August, 1928.

Director : Mr. J. F. Jackson, F.G.S.

A small party met on the side of the Needles Down at a spot commanding a striking general view of the magnificent section of vertical and inclined Eocene and Oligocene strata in the cliffs of Alum Bay and Headon Hill. The Director gave a brief account of the geological structure and history of the Island, and described in greater detail the conditions of formation and characteristic fossils of the rocks in the area visited.

The members then descended the Chine and walked along the beach at the foot of the famous coloured sand cliffs ; here the conspicuous seams of lignite in the Bracklesham Beds, each with its underclay full of rootlets, just as in the underclays beneath many of the coal seams in the true Coal Measures, aroused special interest.

A few members ascended Headon Hill after tea to study the varied series of marine, estuarine, and fresh-water deposits belonging to the Headon Beds, and a number of characteristic fossils were speedily collected. The Director pointed out the seam of lignite resting upon a piped surface of Upper Headon fresh-water limestone, certain bands in which were seen to be remarkably brecciated.

Excursion to St. Helens, Saturday 25th August, 1928.

Directors : Prof. E. B. Poulton, F.R.S., and Mr. G. W. Colenutt, F.G.S.

A large assembly gathered on the Duver, an area of sand-dunes and salt-marsh always attractive to naturalists, where Mr. Colenutt gave a long address on the history of Brading Harbour, and explained the formation of the extensive shingle banks along the Solent coast of the Island. He also spoke very strongly on the damage done by the reckless carting away of shingle from parts of the coast where erosion was active, citing St. Helens as a case in point, and it was then observed that a gang of men with lorries were busily removing shingle from a place where the sea wall was already damaged and in danger of destruction.

The party halted by the tower of the old church, and Prof. Poulton outlined its history, pointing out that all the rest of the structure, together with much of the churchyard, had been washed away by the sea. He commented on the public-spirited action of Lord Ebbisham, who had had the walls of the tower repaired and the breakwater at its foot strengthened. Mr. Colenutt then spoke on the geology of the rocks exposed in the low cliff by the churchyard, where the Bembridge Marls were seen resting on the Bembridge Limestone. Prof. Poulton

then led the way to the copse adjoining St. Helens Common and along a shady path to the edge of the salt-marsh, where Mr. J. Groves, F.L.S., spoke on the remarkable history of the now common Cord-grass, *Spartina Townsendii*, a plant probably of hybrid origin, which had established extensive colonies in creeks and on mud-flats all along the Solent. On leaving the copse Prof. Poulton pointed out some badly damaged elms which had been attacked by the dreaded Dutch elm disease, now well-established in many parts of England. The President gave an interesting address on the numerous and varied bird population of Brading Harbour and the neighbouring countryside, dwelling particularly on the nesting habits of some of the residents and describing the more uncommon winter visitors. Mr. Colenutt, speaking on behalf of the Society, expressed the appreciation and gratitude of the members to Prof. and Mrs. Poulton for their generosity in presenting to the National Trust the beautiful copse and Common which they had just visited, and thus securing this attractive locality for the enjoyment of future generations.

The proceedings were terminated by a visit (by kind permission of Sir Harry Baldwin, C.V.O.), to Eddington Farm-house, an interesting specimen of the domestic architecture of probably some three centuries ago.

Excursion to Newchurch and Alverstone, Wednesday 5th September, 1928.

Directors : The Rev. F. J. Bamford, B.A., R.D., and Mr. J. Groves, F.L.S.

The members were received at the Church by the Vicar, who gave a most interesting address on the history and architectural features of this ancient structure. He drew special attention to the lectern, a spirited piece of wood carving representing the "Pelican in her piety," and explained that it had given rise to controversy, some persons having thought that it was an eagle. Thus Dr. Cox, in his book "The Churches of the Isle of Wight," writes: "The queer thing about this carving is that the bird is not a pelican but an eagle." He here fell into the common error of thinking that the pelican of natural history and of heraldry were the same; but turn to Fox Davies' great book, "The Complete Guide to Heraldry," and you read: "The pelican may be considered an instance of the application of the existing name of a bird to an entirely fanciful creation." In heraldry it was always depicted with the head and body of an eagle, with wings widespread, and with neck embowed, pecking with its beak at its breast. Even a pelican's head, when erased at the neck, was shown in that position. It had never been known to close its wings on any coat of arms, and was always blazoned in the colour and plumage of an eagle, and never in

its natural colour of white. Nearly always it had a sacred character—symbolical of the care of Christ or of His Church for His followers. It had no more to do with natural history than the Wyverne or the Cockatrice.

Mr. Groves then guided the party along the road above Lynch Copse to the pleasant footpaths through the marshes and copses on the way to Alverstone, where tea was obtained.

Excursion to the Longstone and Mottistone Manor House, Saturday 22nd September, 1928.

Directors : The President and Mr. H. F. Poole.

Some 80 members met at the foot of the Longstone where Mr. Poole read a paper on this striking relic of prehistoric times, stating that the name Mottistone was traceable as far back as the Domesday survey, when it was written Modrestone; this showed that the name had relation to the stone, and had no connexion with the more usual "ton." Nevertheless there appeared to be no direct reference to the Longstone earlier than Englefield's description in 1816. The Longstone had generally been regarded as a "Druidical" monument used in later times as a meeting or mote stone, the only evidence for this being its conspicuous upright position. Mr. Poole quoted Englefield's graphic description to show that no perceptible change had taken place since 1816, and remarked that later writers had added comparatively little to our knowledge. Menhirs, or single upright stones such as the Longstone, were usually set up at or near a place of burial, and were generally referable to the later part of the Neolithic period. They were usually associated with long barrows, and Mr. O. G. S. Crawford, F.S.A., who had made some study of the Longstone, informed him that the most important fact was the undoubted presence of a long, low mound, oriented roughly east and west, at the east end of which the Longstone stood. The speaker remarked that as it appeared to be agreed that the Longstone owed its erect position to the hand of man, he might be accused of archæological heresy in stating that he saw no reason why its erection should not have been by natural agencies. The stone was derived from a hard stratum in the Lower Greensand, which lay in situ a short distance away, and it might occupy its present position by slipping of the strata and subsequent denudation of the softer beds. A natural origin, however, would not imply that it was not made use of as a mote stone or as part of a long barrow. He then referred to the numerous Neolithic flint implements, particularly to the minute and beautifully worked forms known as "pygmies," which had been found in the vicinity of the Longstone by the late Messrs.

J. E. and T. E. B. Gunyon ; and Mr. J. C. S. Barton exhibited a beautiful collection of Neolithic and Bronze Age flint arrow-heads and various fine implements from Mottistone and Chillerton.

A brief informal visit was paid to Mottistone Church, where the Secretary read notes on its history and architecture. The visitors, now numbering 94, then proceeded to the Manor House, where they were received to tea by Miss Seely, who afterwards conducted them over the tastefully reconditioned building.

Mr. J. Groves, F.L.S., read a paper based on "The Architectural Antiquities of the Isle of Wight," by Mr. P. G. Stone, F.S.A., stating that the manor at the time of Domesday was of some importance for an Island holding, being valued at £6, a decrease, however, of £4 since its tenure under the Confessor. From its then possessor, William, son of Azor, it appears to have come by descent to Brian de Insula, who, dying in the 19th year of the reign of Henry III, left his property to his three daughters, who had severally married Thomas de Brito, Ralph de Scopham, and William de Glamorgan, the last apparently having as his share the manor of Mottistone. In the latter half of the 15th century the Glamorgans held this manor as well as those of Brook, Uggeton, Landguard, Wolverton, Hardley, and Scottesford ; from the Glamorgans it came by marriage to Edmund de Langford, whose widow Dionysia, in the Register of Bishop Edington, c. 1350, held the advowson of the church. On her death the property came to John de Langford, who also had married a "Dionisia"—not an uncommon name at the period—and who predeceased his wife. By an Inquisition taken in the 17th year of the reign of Richard II, on the death of this second Dionisia, it appears that she held both the manor and the presentation to the church. It was next in the hands of the Cheke or Chyke family, one Edward Chyke presenting to the church in 1374, and being called "Dominus de Mottiston." With the Chekes it remained till 1623, when Thomas Cheke sold the manor to Sir Robert Dillington, of Knighton, whose descendant, Sir Tristram, sold it again to John Leigh of North Court.

The house dates from the first half of the 16th century, and consists, so to speak, of two distinct buildings, the eastern of which is the earlier ; the main body of the house was probably remodelled at the date, 1567, cut in a panel over the entrance porch, and the eastern wing was then presumably relegated to the servants' use as domestic offices. There are two entrances to this wing, through four-centred, lintel-headed doorways, and the angle of the two blocks is closed with a porch. The small room over the porch was originally lighted by a window above the arched entrance, but this was blocked up in the 1567 remodelling, and the date stone inserted, a two-light window being placed in the gable end. The inner door to the porch is a good specimen

of the period, and the hall to the left contains the usual four-centred fireplace, over which, on a stone, are cut the three crescents of the Cheke family, with the initials "T.C. I.C.," presumably for Thomas Cheke and Jane or Joan his wife. Nearly all the internal door openings are of stone, with flat-arched lintel-heads, and splayed and stopped jambs; the staircase is also of stone. The house is lighted throughout with the usual square-headed mullioned and transomed windows, and has a fine attic storey.

The President moved a hearty vote of thanks to Major-General the Rt. Hon. J. E. B. and Mrs. Seely, who unfortunately were away from home, for allowing the Society to visit their most interesting old house, and to Miss Seely for her kindly hospitality.

Fungus Foray to Ashen Grove, High Wood, and Swainston Park, Wednesday 3rd October, 1928.

Directors: Mr. J. F. Rayner, M.B.Myc.Soc., and Mr. J. Groves, F.L.S.

By kind permission of Sir John Simeon, Bart., a small party spent a pleasant day in searching the copses for Fungi to be shown at the exhibition on the following day, but, owing to the very dry season, comparatively few species were found.

Exhibition of Fungi at Headquarters, Thursday 4th October, 1928.

Mr. J. F. Rayner, who had come over from Southampton to assist in collecting and to name the exhibits, gave a very interesting and lucid address on Fungi, and illustrated his remarks on their structure and classification by a number of his own large coloured drawings of typical genera.

The specimens collected at the Foray together with those brought in by other members amounted to 85 species.

To compensate for the scarcity of Fungi an attractive exhibit of wild flowers, fruits, and seeds was provided by a few of the more active members.

General Meeting, held on Saturday 27th October, 1928.

Mr. J. Groves, F.L.S., in the chair.

The Rev. H. M. Livens gave a masterly lecture on the Life-history and Structure of the Honey Bee.

The Lecturer pointed out that it was possible to distinguish several grades (which probably corresponded to actual stages in the evolutionary process) from the purely solitary species, through the semi-social kinds living each in its own simple home, often closely crowded together but not forming an organised colony, and so to the truly social species in which the lives of the individuals were entirely subordinated to the needs and activities of the co-operative community in which they lived and apart from which they could not exist. Of these last the Honey Bee was by far the most advanced and specialised, and marked the climax of social evolution in the bee world.

The Lecturer described the three classes forming the population of the hive—the queen, workers, and drones—and explained their distinctive structural features and special functions. A good healthy queen should lay about two eggs per minute per day in the summer, and might produce from one to one and a half millions in her lifetime. The welfare of the hive was absolutely dependant on the presence of a vigorous queen, and it was a most interesting fact that when the workers observed that their queen was growing old and barren they would deliberately crowd round her until she was suffocated; the execution was carried out with great consideration and decorum, but it was very efficiently done all the same.

A lucid account was then given of some of the more striking of the marvellous instincts concerned in the processes of feeding, comb-building, and rearing the young, the wonderful life-history of the bee from egg to perfect insect being treated in some detail.

The Lecturer, while disclaiming any intention of entering into the practical side of bee-keeping, remarked that many well-intentioned but misguided amateurs did a great deal of harm by covering their hives in winter with piles of miscellaneous dirty cloths—the surest way to cause disease to appear. He outlined the evolution of the hive from the crude contrivances still used in some Oriental countries, to the straw skep of our fathers, and, finally, the cleanly and convenient box hive now used by all progressive bee-keepers. It was interesting to note that Sir Christopher Wren made the first English loose-box hive, and that in his design the brood chamber was at the top, not at the bottom.

The lecture was illustrated by many unusually fine lantern slides.

General Meeting, held on Thursday 15th November, 1928.

The President, Mr. R. H. Fox, in the chair.

Mr. J. Groves, F.L.S., gave a most interesting and instructive address on Predatory Plants.

The Lecturer stated that the vegetable kingdom was broadly divisible into two groups ; one, and that by far the greater, consisting of plants which obtained their nourishment directly from soil and air, and the other comprising a variety of types which lived wholly or partly as parasites upon other organisms, or were dependent upon the products of their decay.

The Lecturer described the growth of a typical flowering plant from the seed and outlined the physiological processes involved in its nutrition. He stated that Fungi were predominant among the saprophytes, or plants living upon decaying organic matter, but this mode of life had arisen in other groups also ; examples of these were the Coral-root, *Corallorhiza innata*, a rare orchid ; the Birds' Nest, *Monotropa hypopitys*, an aberrant member of the heath family ; and certain mosses such as *Buxbaumia* ; in the last named the vegetative parts were so much reduced that the plant consisted of little more than the reproductive system.

Among wholly parasitic plants the Dodders and Broomrapes stood out as most efficient robbers. The Lesser Dodder, *Cuscuta Epithymum*, might often be seen covering gorse or heather with its tangled skein of thread-like reddish stems, and another species, *C. Trifolii*, was very harmful to clover crops. The Broomrapes, *Orobanche*, were highly specialised parasites, most of the numerous species being each restricted to a single host plant ; the seeds could only germinate if in contact with the root of a suitable victim, and consequently, to insure the presistence of the parasite, they were very numerous. The headquarters of *Orobanche* was in the Mediterranean region, and as a general rule parasitic plants were most abundant in warm climates ; many of the most wonderful forms were inhabitants of the tropics.

No hard-and-fast line could be drawn between out-and-out parasites—the criminal class of the plant world—and honest plants earning their own living in a respectable manner. Many plants were partly parasitic and supplemented the normal nutritive processes by preying to a greater or lesser degree upon their neighbours. Mistletoe was a good example ; it drew sap from the host tree while its own abundant green leaves were functionally active. Cow-wheat and Yellow Rattle were disliked by farmers, and they had been found to be addicted to parasitism ; even the innocent-looking little Eyebright took illicit toll from the roots of grasses.

Lastly, an important group of plants were predatory without necessarily being parasitic, and had developed carnivorous habits to supplement the inorganic diet that sufficed to satisfy the vast majority of plants. Some, such as the Bladderworts, *Utricularia*, and Pitcher-plants, *Nepenthes*, were passive trappers dependent on insects, etc., falling into special receptacles containing water, in which their bodies

decayed and were assimilated by their captors ; others, such as the Butterwort, *Pinguicula*, Sundew, *Drosera*, and Venus's Fly-trap, *Dionæa*, were active hunters provided with special organs for catching and holding fast their prey.

The lecture was illustrated by mounted specimens of predatory plants from the speaker's herbarium and excellent coloured drawings of the insectivorous types.

Exhibition of Objects of Interest in connexion with Natural History and Archæology, held in the Central Hall, Ventnor, Wednesday 28th November, 1928.

This highly successful exhibition was visited by fully five to six hundred people from all parts of the Island.

The chair was taken by the President at the opening ceremony, and with him on the platform were Mr. and Mrs. H. de Vere Stacpoole, Mr. and Mrs. D. J. Bevan, Major H. H. S. Scott, Mr. J. Groves, Mrs. D. Day, Mr. T. J. Farrell, and the Secretary.

The President briefly introduced Mrs. Stacpoole to open the exhibition, and thanked her and her husband for their attendance. In replying Mrs. Stacpoole said that she considered it a great privilege to open so fine and interesting an exhibition, and emphasised the value of the proper cultivation of the instinct for collecting beautiful and interesting things. Mr. Stacpoole said he was glad to be associated with such a beautiful exhibition. The Isle of Wight—the most beautiful spot on earth—abounded with natural objects of interest and in relics of its past inhabitants, and the Society was doing good work in encouraging a taste for these things.

Mr. Farrell, who was responsible for the excellent arrangements, spoke on the varied activities of the Society, and made an appeal for a larger membership. He was followed by Mr. Groves, who made some explanatory remarks on the botanical exhibits, and urged all persons who possessed objects of real scientific value to realise the importance of securing, by will or otherwise, their preservation in some recognised museum.

The principal exhibits were :—

Mr. J. C. S. Barton.—A fine collection of Neolithic and Bronze Age flint arrow-heads and other flint implements from Mottistone and Chillerton. Romano-British pottery from Barnes Chine.

Mr. D. J. Bevan.—Collection of rock specimens.

Mrs. Bevan.—A quilt.

Mr. A. Bevis.—A large selection of some of the most striking and beautiful forms of exotic Lepidoptera and other insects from his magnificent collection.

Miss Bachert.—Various wild flowers and plants.

Mrs. Way Buckell.—The original MS. of Longfellow's verse now inscribed on the drinking fountain near Shanklin Chine.

Mr. and Mrs. D. Day.—Flexible sandstone and views of old Bonchurch.

Mr. G. C. Dunning, B.Sc.—Roman bronze brooches from Ventnor ; Roman pottery from Ventnor and Barnes Chine ; Palæolith from High Port, Ventnor. Photographs and drawings of Early Bronze Age barrow on Niton Down, excavated by the exhibitor.

Mr. J. Dunning, M.P.S.—Interesting set of old pharmacy jars and medicine bottles and an early type of infant's feeding bottle. A number of photomicrographs of insects.

Miss J. Gale.—Collection of North American stone arrow and spear-heads.

Mr. G. A. Garfitt, F.S.A.—A fine deer-horn pick from an Early Neolithic flint mine at Grimes Graves.

Mr. J. M. Goodall, M.B.O.U.—A large selection of beautiful specimens of British and exotic birds' eggs, and nests of eggs arranged as found in nature ; cases of mounted birds and other animals. A splendid display, but only a small portion of his wonderful collection.

Mr. J. Groves, F.L.S.—Herbarium specimens of rare Island plants. Coloured drawings of sea anemones, etc.

Miss Hearn.—An unusually finely worked and beautifully designed patchwork quilt, made in 1790 by a lady over 70 years of age. Fine examples of Isle of Wight lace.

Mr. H. A. Ives.—Brass paten (dated 1564) found at Wolverton, St. Lawrence. Old Acts of Parliament relating to the Island and some rare early maps of same. Fine local "Choanites" (silicified sponges), and a magnificent landscape agate.

Mr. J. F. Jackson, F.G.S.—A variety of beautiful and curious exotic marine shells, illustrating unusual forms of growth and adaptation to special habitats ; a large collection of characteristic operculate land shells from various countries.

The Rev. H. M. Livens.—A collection of mounted lichens.

Mr. J. W. Long.—Alien plants found in the Island.

Mr. P. Long.—A number of freshly gathered mosses.

Mr. F. J. Matthews.—Oriental soapstone carvings, etc.

Miss Morey.—Local Palæolithic implements. Old Island prints. Mounted specimen of Australian Duck-billed Platypus.

Mr. G. New.—A large series of fine Neolithic flint implements from the Sandown district.

Mr. H. F. Poole.—A fine case of stone arrow-heads from various countries.

Mr. L. T. Salt.—A fine set of Island Neolithic and Bronze Age flint arrow-heads.

Major H. H. S. Scott, J.P., F.R.H.S.—A fine selection from his valuable collection of Malayan Lepidoptera.

Mr. G. Smith.—Bronze palstave from St. Lawrence and Roman coins from the hoard found at Wroxall in 1863.

Mrs. H. de Vere Stacpoole.—Drawings of an interesting church in Essex showing the stone screen, the best of the three examples of stone screens in England.

Mr. G. Trueman.—A large number of early maps and prints relating to Ventnor and other parts of the Island.

Miss Wheeler.—Old £5 notes of Newport and Isle of Wight banks, and old documents relating to the Worsley family.

The Misses Williams.—A charming display of 60 species of wild flowers picked around Sandown.

Mr. C. W. Woodford.—Fine Neolithic implements from the Sandown district.

Mr. G. T. Woods.—A splendid *Iguanodon* jaw from the Wealden Marls at Yaverland.

General Meeting held on Thursday 13th December, 1928.

Mr. J. Groves, F.L.S., in the chair.

The Rev. J. C. Hughes, B.A., gave a very interesting lecture on the Races of Europe, explaining in his opening remarks that he intended to use the term race strictly in its proper sense, meaning breed or stock, and not as was so often done in a loose way as a kind of synonym for people or nation. A people might be a pure race, and of such the Eskimo and Australian natives were examples, but most nations consisted of a mixture of several races more or less blended; the British, for example, were a people, not a race. It had been sometimes assumed that language was a fairly certain guide to racial affinity, but it was now known that such was very far from being the case; at the same time it was an exaggeration to declare, as some had done, that language was of little significance to a people. Community of language, manners and customs, religion, and the history and traditions of a nation had

a profound effect, and this cultural inheritance probably had often as great an influence as the purely physical.

The lecturer outlined the geographical and climatic conditions of Europe in early Pleistocene times and described some of the characteristic extinct animals which were contemporary with Palæolithic man. Flint implements of the early Palæolithic period were common in the older river gravels, but actual remains of man himself were very rare; of these the most ancient was the very massive jaw found at Heidelberg. Much more was known of the later Neanderthal race, whose remains had been found in caves in various parts of Europe and also, more recently, in Palestine and South Africa. This primitive type seemed to have died out somewhat suddenly after the last general glaciation in N.W. Europe and to have left no direct descendants; there was, however, an overlap in the succession of races, the older surviving in places after the newer had arrived. Neanderthal man was replaced all over Europe by a highly developed race, often called the Cro-Magnon from typical remains found in the South of France, which was certainly in the direct line of ancestry of modern man. These men not only made beautiful stone implements, but were also great artists in bone and ivory, and decorated the walls of their caves with drawings of hunting scenes, etc. The Cro-Magnon race was developed outside Europe, probably in the vast grass lands which covered much of the desert belt of Africa and Asia during the European Ice Age.

The races of Europe seemed to have been much the same as now at the dawn of history, and doubtless had occupied the continent for thousands of years. Of the three races, Mediterranean, Alpine, and Nordic, the first appeared to have been dominant in Neolithic Britain, and was subjugated by the second, a broad-headed type from Central Europe, using bronze weapons and tools. Later on, in the Early Iron Age, Britain was invaded by the Celts, who came in two successive waves, as Goidels and Brythons, and were followed in due course by Anglo-Saxons, Scandinavians, and Normans, the resulting mixture and partial fusion of races forming the modern British people.

The lecture was illustrated by drawings of skulls of certain prehistoric and modern races.

Mr. J. Groves exhibited specimens of new varieties of Woodsage, *Teucrium Scorodonia*, and Sea Rush, *Juncus maritimus*. He also read an interesting letter from Prof. Oliver on the cultivation of the Cord-grass, *Spartina Townsendii*, in Holland, and showed photographs of extensive nurseries of this plant on Dutch mud-flats.

THE CLIFF-FOUNDER AND LANDSLIDE AT GORE CLIFF, ISLE OF WIGHT.

By G. W. COLENUTT, F.G.S.

“ There rolls the Deep where grew the tree.
O Earth, what changes hast thou seen !
There where the long street roars, hath been
The stillness of the central sea.

The hills are shadows, and they flow
From form to form, and nothing stands ;
They melt like mist, the solid lands,
Like clouds they shape themselves and go.”
Tennyson.

In these beautiful lines the poet has admirably expressed a reverent recognition of those great orderly changes which are so fully appreciated by the geologist. Indeed, the very basis of our science is the systematic tabulation of the results which have been produced by the slow but unceasing operation of the several natural agencies which are now, and in past ages have been, always at work. It has been truly said that the forces which are in operation now are quite sufficient to produce the vast changes which the science of Geology formulates as having taken place, provided sufficient time is allowed during which those forces have been in operation. Put into few words the main factors which we have to consider are sun, wind, rain, and frost, with their masterly reinforcements of streams, rivers, and the all-important breaking waves along the coast line, together with the tides and currents of seas and oceans. Varying in power and effect these forces are always at work, and have been at work for a time to which we cannot assign a commencement, as we human beings understand the idea of “time” and what it signifies. These factors are fully recognised by the geologist, who appreciates what his science deals with, namely, the cumulative effects produced by an infinitude of apparently minor operations of natural forces extending over periods to which no time limits can be assigned. It is only when these forces are naturally brought into sudden activity, producing a dramatic change in the configuration of the land surface, that the general public begins to take an interest in the matter and desires to know the why and wherefore of the occurrence.

The considerable fall of rock at Gore Cliff in July, 1928, and the landslide affecting an area of some importance in the picturesque Undercliff, leading to the destruction of a part and the necessary closing of a considerable length of the roadway, together constituted an event which attracted much notice not only in the Island but elsewhere, and the site has been visited by many thousands of people. Although the landslide caused a good deal of local excitement and was regarded as being quite a successfully spectacular affair, its value as a lesson in geological science was generally overlooked at the time it occurred, and this aspect should not be lost sight of. While it is still possible to do so, it is desirable that as complete a record as is practicable should be made of the whole series of events which occurred along the line of cliff just to the west of Windy Corner during June and July, 1928. Such an account is rendered of greater value when, as in this case, it can be supplemented by photographic records of the event itself and of the resultant alterations in the landscape. The whole occurrence forms a piece of tangible and visible evidence showing that geologists were correct in postulating a long series of such events of greater or lesser magnitude as having happened at intervals during very many centuries and as having led to the formation of that charmingly picturesque area, extending from Blackgang to Bonchurch, known as the Undercliff.

It may be helpful to take a general survey of the geology of the Undercliff, as it is essential thoroughly to understand the main arrangement of its strata before dealing with the events with which this paper is primarily concerned.

The range of Downs from Chale to St. Boniface lies along the southern slope of the Sandown anticline, or synonymously along the northern side of the correlative synclinal fold, the extent of which can only now be surmised as it affected land to the south of the Island which long since has been removed by erosion. The dip of all the strata now remaining is in a southerly direction and the actual coast line is approximately at right angles to the dip-slope. The area separates itself naturally into three divisions, namely, the line of low cliff bordering the seashore, the broken ground to the north of those cliffs, and the higher vertical cliffs on the north side of the broken land and forming the southern edges of the Downs themselves. The strata with which we have to deal are the Sandrock and Carstone or uppermost beds of the Lower Greensand, the overlying Gault clay, and the passage beds which pass upwards into the Upper Greensand which forms the line of inland cliffs and at Gore Cliff is about 120 feet in thickness. These cliffs are capped by the Chloritic Marl and the remnants of the Lower Chalk, showing in contour the usual smooth swelling features of the Chalk Downs. It is found that the top beds of the Lower Greensand known as the Carstone occupy a position approximately midway

between the seashore and the base of the inland cliffs in the area just west of Rocken End. All the strata are conformable and have a distinct southerly dip. On this sloping surface of Lower Greensand lies a confused and mixed assortment of materials, consisting in part of areas of Gault clay and great quantities of rock masses and fragments of all sizes derived from the falls of strata from the broken face of the Upper Greensand cliffs. It is clear that the recession of these cliffs has proceeded more quickly than has the erosion of the Lower Greensand by the action of the sea. Another factor which has materially assisted in the process of change is the outflow of water from the base of the inland cliffs at many places along the Undercliff. The junction of Lower Greensand and Gault is well defined and comparatively sharp, but on the other hand the junction of the Gault and Upper Greensand is a gradual one, and the actual passage beds are of considerable thickness and, for the purposes of this inquiry, of great importance. The total thickness of the Gault at Gore Cliff is 146 feet. The lower part of the Upper Greensand consists of a yellowish, buff-coloured, sandy limestone or marl of a massive but not very hard nature, known as the malm rock, and there about 95 feet thick. It is transversely jointed or traversed by cracks and readily separated into irregularly shaped blocks and angular masses. These lower strata are overlaid by the chert beds—at Gore Cliff nearly 30 feet thick—which form so prominent a feature all along the higher portions of the inland cliffs. Chert is, of course, an impure form of flint, and the layers are separated by softer bands of Greensand. As a consequence of the chert being more resistant to erosion by sun, wind, rain, and frost, the chert bands jut out in horizontal layers in high relief from the adjoining strata, an arrangement which is obvious to the most casual observer. In many places the chert beds form a projecting cornice and overhang the underlying strata.

It will be noticed that here, as in other places, the geological features of a locality determine its physiographical history, and a material factor is found in the extensive cracking and fissuring to which the Upper Greensand strata of these Downs have been subjected as a result of ancient earth movements. The vertical joints are plainly visible in the face of the cliffs, and many of these fissures take a direction roughly parallel to the broken edges of the cliffs. We know that to some extent the Chalk and Upper Greensand strata, being of an alkaloid nature, are partly soluble under the influence of the percolation of rain-water carrying humic acids in solution, and in the lapse of time cracks and fissures, small at first, have been gradually enlarged by this process, and the effects so produced are some of those which particularly have to receive our attention. Again it must be remembered that this line of cliffs is exposed to the full force of the prevailing south-westerly winds, bringing with them the mists and rains which beat on this

exposed part of the Island. Much of the rainfall percolates downward through the cracked and porous strata of Chalk and Upper Greensand until, on meeting the impervious Gault clay, the water is thrown out in the form of springs flowing from the base of the cliffs. All along the length of the Undercliff these springs are in evidence, and on the north side of the Downs also springs are found, and outflows of water emerge from the same basement beds at many places. The springs of the Undercliff are the more important and numerous, however, owing to the southward slope of all the strata of which the springs constitute the natural drainage.

With these data dealing with the geological and physiographical features of the Undercliff before us, we can now devote attention to the area of land lying below Gore Cliff, at the western end of the Undercliff; here the line of inland cliffs is recessed and below is a wide valley leading down to the shore to the west of Rocken End. From the base of the cliff at the end of this valley there is a considerable outflow of water in the form of a constantly running spring thrown out by the Gault Clay. This water has found its way by a course or gutter which it has cut out down the dip-slope of the Carstone and Sandrock beds of the Lower Greensand. This ancient channel to a large extent is filled up by materials which have fallen from the cliffs, so that the water flows underground for the greater part of the distance between its source and the sea. The extra recession of the face of the cliff suggests, as no doubt is the case, that falls of portions of the cliff have been more frequent or more extensive here than have been the founderings either to the east or west of Gore Cliff. The remains of a tremendous fall lie piled against the cliff at Windy Corner and from the steep face of the grassy talus project many masses of rock derived from the chert beds.

The modern roadway below Gore Cliff no doubt is constructed along the line of an earlier track, and it is known that about 75 years ago a repair of this roadway was undertaken. At that time a portion of the cliff at the western part of the curve was overhanging in a menacing manner and threatening to fall on the road, and the authorities decided to demolish the piece of cliff, which obviously was dangerous. Gunpowder is reported to have been the explosive used, and no doubt a very picturesque and exciting "bang" was the chief feature of the day. At all events, on that occasion was dislodged from the upper part of the cliff a mass of the chert beds which is known as the "great rock," the weight of this fragment being estimated to be some 85 tons. When things had settled down the new road was made round the head of the valley on the inner side of the "great rock" and closely following the incurved line of the cliff.

It is recorded that, until it was destroyed by an extensive slide at the end of the eighteenth century, a farm called "Pitlands," with its necessary house and outbuildings, stood in the valley between Gore

Cliff and the sea. The stream was impounded at the farm and used as a sheepwash. Accounts occur in some of the old guide-books of the slide which took place in 1799, leading to the demolition of the buildings of the farmstead, but it has been possible to trace, until recently, the site of the old sheepwash. It would appear that a good deal of water coming from the Gore Cliff spring emerged under the roadway near Windy Corner and thence found its way by channels (now dry) to Watershoot Bay, just east of Rocken End. After the thaw following the great snowstorm of 1881 a slip took place below the road and led to the diversion of the main body of water, which since that time has passed directly down the valley to the shore to the west of Rocken End. In the year 1914 a reservoir was constructed at the base of Gore Cliff, between the road and the actual cliff, with the object of intercepting water from the spring and by means of pipes from the reservoir furnishing a supply of water to Windcliff House at Niton, the residence of the owner of land in this locality. There is no reason to assume that the presence of this reservoir played any part in causing the events which happened in July, 1928. The roadway has been repaired from time to time and along it have passed the countless numbers of vehicles of all kinds, carrying in summer time the thousands of visitors who have enjoyed the beauties of this charming way through some of the most picturesque scenery in the British Isles. It is desirable here to call attention to a tendency of which it is possible so often to find evidences in many of the hilly parts of the Island, the liability of walls, buildings, or weighty rock masses to "creep" downwards when situated on the sides of our valleys. A clay subsoil dries and contracts during hot weather, when settlement or "creeping" naturally results, and it would be difficult to find any subsoil more unstable than the Gault.

Inquiry and observations show that extensive soil movements were going on in a marked degree in the valley below Gore Cliff during the early part of the year 1928, these movements tending necessarily to affect the stability of the whole area, including the cliff. Indeed it was during the first months of the year 1927 that it was noticed that the cracks and fissures at the top of Gore Cliff were getting wider, and particularly those long cracks which were practically parallel to the edge of the cliff. Early in 1928 warning notices were issued by the I.W. County Council, as the Highway Authority, stating that the roadway was becoming dangerous and recommending persons using it to pass as quickly as possible. The condition of the cracks and fissures gradually became more menacing, and it was also noticed that more water from the spring was passing out under the road, and that minor movements were taking place in the soil and subsoil of the valley. On the 20th of July, without any warning, about 20 tons of material from the malm rock beds of Gore Cliff fell and obstructed the highway.

The County Council thereupon closed the road to vehicles and pedestrians, and barricades were erected at each end of the length of road. On the 23rd of July there was a more extensive fall from the lower part of Gore Cliff, when about 200 tons of rock came down and caused serious damage to the road. A great outflow of water from the base of the cliff now occurred and continued, and the road itself commenced to crumble away, the macadamised surface being extensively cracked. Soon after three o'clock on the afternoon of the 26th of July the great fall of cliff took place, and it is estimated that about two hundred thousand tons of material fell from the face of Gore Cliff, completely burying the road under an immense mass of rocks of all sizes. Much of this material was hurled far down the valley below the road.

It is of great interest to be able to place on record the experiences of an eye-witness of the collapse of the cliff, and Mr. H. J. Watson, of Pear Tree Avenue, Southampton, writes as follows:—

“ I was spending a holiday at Knowles Farm, St. Catherine's, which, of course, is within a few hundred yards of Windy Corner ; and on my arrival there some ten days before the great fall I was much impressed by the considerable movement which had taken place above the lower cliff along Chale beach since my visit of the previous year. On the evening of July 25th I was sitting close by the stream below Windy Corner watching the curious movements taking place over a wide area of the soft ground ; the turf was visibly breaking up and sliding down the slope, and in the course of an hour or so I noticed a small bush entirely uprooted. I was about to commence lunch at the Farm on the following day (July 26th) when our attention (there was a party of us) was arrested by a pronounced tremor and rumbling noise, and we all looked towards the fireplace, where soot was falling and the screen shaking. Of course we naturally came to the conclusion that the cliff at last had fallen, and we hurried through our meal so as to be on the scene as soon as possible. The time would be about 1.45 p.m. Regarding the tremor itself, it lasted three or four seconds, and was characterised by one or two severe bumps. As I afterwards discovered the noise and vibration were quite unlike those produced by the sliding material. Lunch being finished I hurried out towards Windy Corner and was astonished to find little change had taken place in the cliff since the previous day, but there was an almost continuous fall of fragments from the rock face. I had a small telescope which I trained on the large crack at the eastern end of the fracture, and in the space of a quarter of an hour I observed a definite widening of this crack and an increase in the amount of falling debris. It was at about 3.10 p.m. when the main crack gradually widened and without any warning report the whole cliff face swayed forward—there was a crackle of stones falling into crevices, and the downward plunge commenced. With very little

noise at first but gradually increasing to a roar the vast bulk swept down to the road and disintegrated during its course into comparatively small fragments ; clouds of dust arose from the sweeping torrent of stones, the full extent of which was obscured by the rising ground on my left. In another second or two all was still and quiet, and the dust rapidly dispersed and was swept up over the cliff. Save for a few minor movements nothing further took place that day."

The evidence of this eye-witness is of great value, as it shows that the actual landslide had commenced in earnest some little time before the fall of the cliff took place. The slippery nature of the Gault clay was causing movement over a wide area near the shore ; the turf was breaking up and all was on the move downwards. The evidence as to the tremor and rumbling noise and the severe bumps raises an interesting question to which it is hardly possible to do more than suggest an answer. By inference it may be assumed that there must have been a great stress somewhere which overcame some ineffective resistance and thus produced the sudden concussion. Had the great weight of this piece of cliff been resting on some of the underlying strata which suddenly broke ? If this be the correct line of reasoning, then a possible solution would be the sudden giving way of a part of the malm rock or Carstone or Sandrock Beds right at the bottom of Gore Cliff and underneath the thick covering of ancient talus. It will be noticed that an hour and a half elapsed between the time of the concussion and the actual fall of the cliff. On the other hand did these thuds signify the bursting of some barrier or barriers by a volume of underground water ? It is recorded that there was a greatly increased outflow of water from the base of the cliff immediately following the fall, and that this water at once found its way along its old channel on the floor of the partly buried valley ; during the renewed movements of the broken ground in September this stream came up as a submarine spring of cloudy water in the sea off Rocken End at some distance below low water mark, and the presence of this effluent of chalky water in the sea was noticed by many observers.

The vast weight of the mass of broken rock came to a temporary rest on the ancient talus at the foot of the cliff, and it was inevitable that an important subsidence and sliding of the whole of this material, including the buried roadway, must follow. It was to be a slow but inexorable process, and it was some weeks before the movement became general. All across the floor of the valley cracks were opening and the outflow of water was filling up many of the depressions in the soil and forming quite a large lake in a long hollow at the foot of the great mass of fallen rocks. Changes became apparent from day to day and from hour to hour, as the great weight of rocks still piled against the cliff face caused a pushing motion to be set up along the whole length of the valley. This extended right down to the shore below low water mark so that

weed-covered rocks were forced up over a considerable area off Rocken End. The roadway and the old bed of talus on which it was constructed became tilted backwards towards the cliff and at the same time forced forwards and downwards. As the slide progressed a further piece of the roadway subsided on the east side of the main fall, and was carried down for some distance but still retaining a semblance of its shape, with its surface rent and cracked and with a piece of its boundary wall remaining in position.

On the occasion of a visit in September it was certainly a very weird and awe-inspiring experience not only to see the slide taking place but also to hear it. The day was fine and still, and one could hear the steady but subdued noise of water bubbling and trickling deep down beneath and between all the rocks and debris in the valley. There was something else which was strange and almost uncanny in its effect—the noise of the earth in motion—a rustling sound almost akin to the murmur or rustle of the breeze through the woodland leaves in summer time. Then something more striking, which caused one to stop and listen—almost commanded one to listen—not quite a groan, but a deeper sound; that of rock masses in close contact being ground together and producing a sound as of the earth in pain and discomfort. These audible manifestations were accompanied by the sight of the moving particles and rock masses of all shapes and sizes—the trickle of perhaps a small quantity of powdered rock and pebbles, and then one's attention was rivetted on the behaviour of a large rock which must have weighed at least ten tons. It was a rock of a long shape; quietly and deliberately it moved and remained for a few moments balanced on the edge of a slope and then, as if animated or impelled by some strange force, commenced to slide and slowly turned end over end several times and came to a temporary rest at the bottom of the declivity amongst others of its fellows.

It may be well now to consider whether it is possible to suggest what were the forces which actually caused the slide and its concurrent cliff-founder. The rainfall in the past few years has exceeded the average quantity, and it is certain that there has been a marked increase in the outflow of water from the base of Gore Cliff. But it is questionable whether the rainfall alone can be assigned as having been the real reason why the land surface in the valley commenced its movement, and it is rather to the cumulative effect of a number of factors that we must look for the determining causes. Summarised, these appear to consist of:—

- (a) The existence of important cracks and fissures approximately parallel to the edge of Gore Cliff.
- (b) The southward slope of all the strata.

- (c) The probable exudation of the edge of the Gault clay at its outcrop under the pressure of the overlying beds.
- (d) The concavity of the surface of the Malm Rock in the lower part of the cliff due to the more rapid rate of its erosion as compared with the overlying and harder Chert Beds.

Possibly assisted by the effect of the increase in the amount of water flowing from the spring at the base of Gore Cliff, these agencies led to a state of general instability being set up, with consequent stresses which culminated in the events which, somewhat inadequately, have been described.

Lastly, it is only right that we should acknowledge how amply justified was the Roads Committee of the County Council in the decision to close the road at Gore Cliff to all traffic before the cliff-fall took place, and it must be a satisfaction to know that no loss of life or personal injury resulted from this great fall of rock on to a normally much frequented highway. With this expression may be coupled the pious hope that ways and means may be found for reconstructing and reopening this length of road, the beauties of which are so greatly appreciated by the Island residents and by the numberless visitors to whom the picturesque Undercliff Road offers so many attractions.

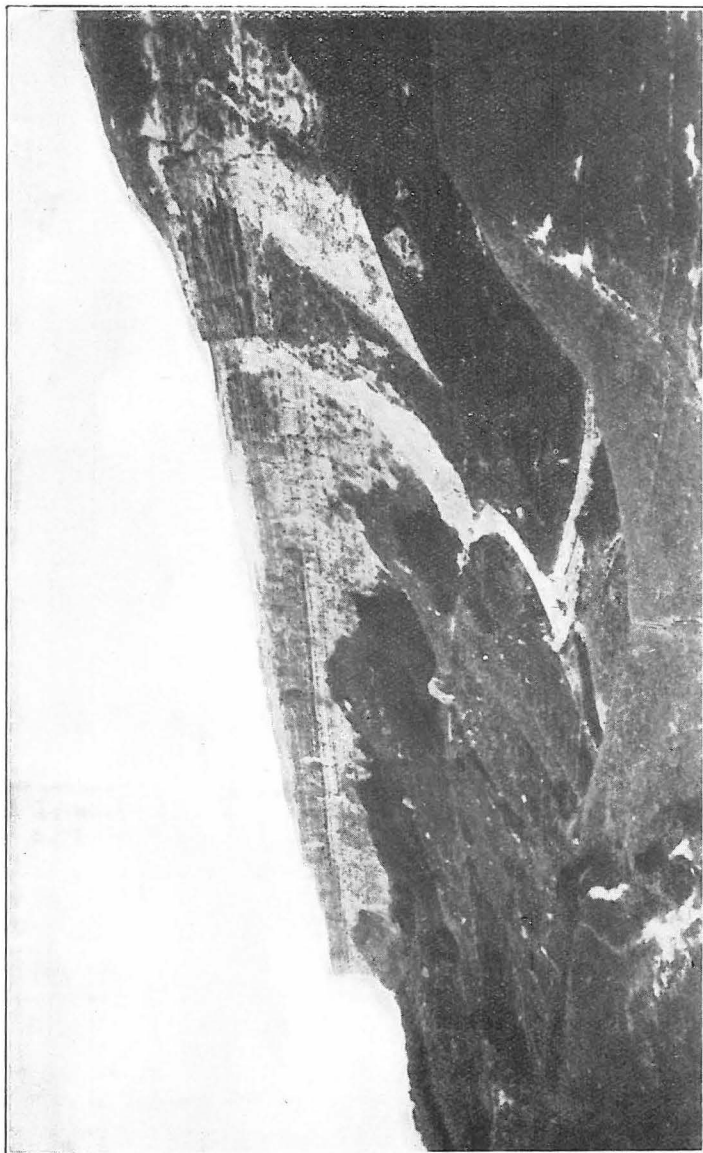
EXPLANATION OF THE PLATES.

PLATE I.—The commencement of the Cliff Fall. From a photograph taken by Mr. H. J. Watson shortly after 3 p.m. July 26th, 1928. Abutting on the inner curve of the road is the mass of material which fell on 23rd July. The widening crack referred to by Mr. Watson can be seen at the top of the cliff on the right-hand side of the picture. (This view is published by special permission of Messrs. Knight's Library, Ventnor, the owners of the copyright).

PLATE II.—The mass of cliff actually falling. From a photograph taken by Mr. H. J. Watson a few seconds after that shown in Plate I. (This view is published by special permission of Messrs. Knight's Library, Ventnor, the owners of the copyright).

PLATE III.—Mass of Talus at Gore Cliff. From a photograph taken by Mr. H. J. Watson in the early morning of July 27th, 1928.

PLATE IV.—Part of Gore Cliff. From a photograph taken by the writer on 22nd September, 1928. The outcrop of the Gault is beneath the material on the lower left-hand side of the picture. Note the vertical scratches on the cliff face caused by the sliding and subsidence of the mass of fallen material. The two dark patches on the cliff face are wet areas where there appears to be an unusual admixture of gaulty clay in the malm rock. The truncated roadway is seen on the right of the picture.



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PLATE I.

Photo by Mr. H. J. Watson.



Photo by Mr. H. J. Watson.

PLATE II

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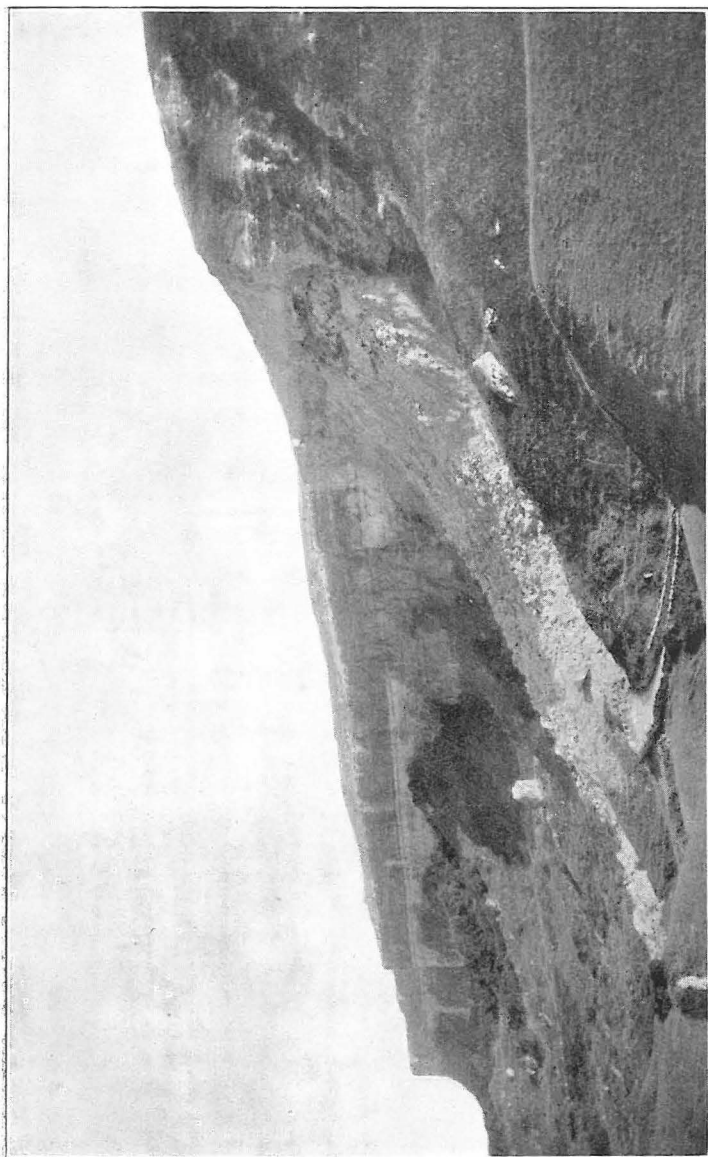


Photo by Mr. H. J. Watson.

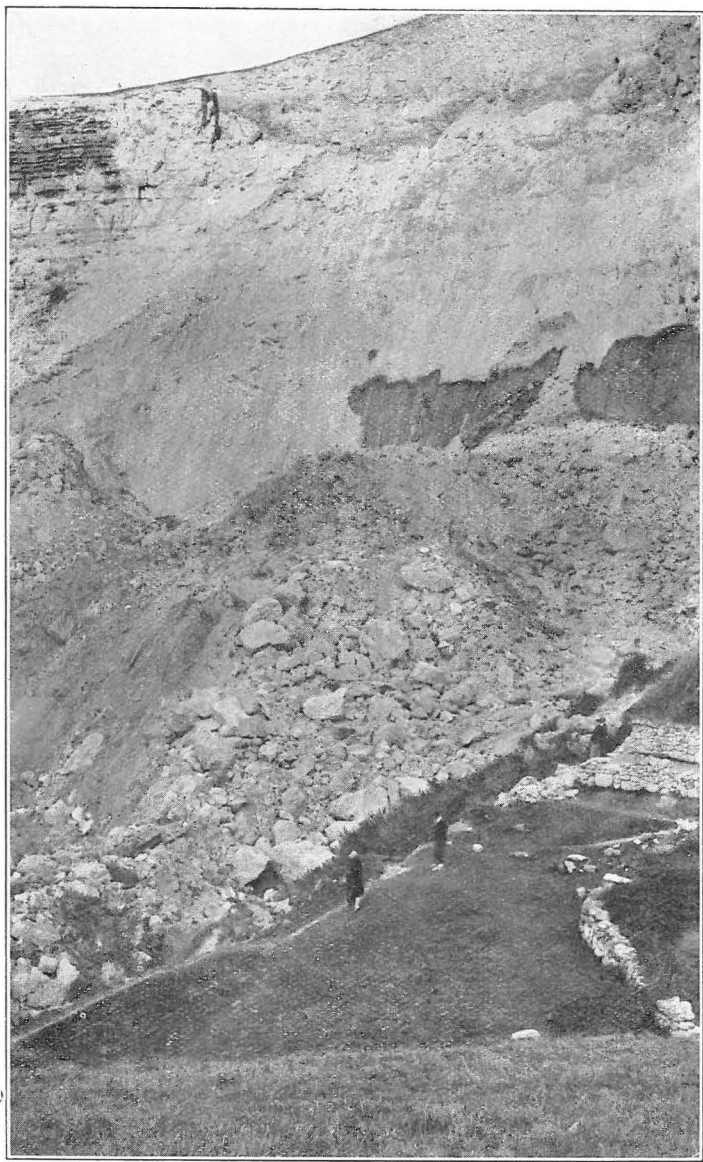


Photo by G. W. Colenutt.

PLATE IV.

A SUPPLEMENTARY CATALOGUE OF EOCENE AND OLIGOCENE FOSSILS IN THE MUSEUM OF ISLE OF WIGHT GEOLOGY, THE FREE LIBRARY, SANDOWN.

Compiled by the Joint-Curator, JAS. F. JACKSON, F.G.S.

The fossils tabulated below have been added to the Museum since the publication of the long catalogue of Eocene and Oligocene fossils in Part VI of the Proceedings of the Isle of Wight Natural History Society for 1925, and the introduction to that catalogue should be referred to by all students using this supplement.

For purposes of comparison the list of fossils in the Geological Survey Memoir (published in 1889) has again been taken as the standard, and species not recorded by the Survey are indicated by asterisks in the present supplement; in addition to these a number of species tabulated by the Survey have now been found at other horizons also, and these occurrences are shown by asterisks in their appropriate stratigraphical columns.

The number of species of Kainozoic fossils in the collection now amounts to the respectable total of 681, but at the same time all the Mammalia and several of the scarcer terrestrial Mollusca of the Bembridge Limestone are wanting. Any geologist who possesses duplicate specimens of these would render a real service by presenting them to the Museum.

Catalogues of the Upper and Lower Cretaceous fossils are in preparation.

I have much pleasure in taking this opportunity of again thanking Mr. A. G. Davis and Mr. A. G. Wrigley for their continued active interest in the welfare of the Museum. Mr. Davis has identified the Bryozoa, and Mr. Wrigley the great majority of the Mollusca; and without their generous assistance it would have been impossible to publish this Supplement.

Thanks are due also to Mr. G. W. Colenutt, F.G.S., Mr. A. G. Davis, Prof. A. Morley Davies, F.G.S., Mr. J. Groves, F.L.S., and Lieut.-Col. and Mrs. A. G. Smith for gifts of local fossils. The specimens presented by the last-named were collected by the late Lieut.-Col. S. Smith, and include the finest example of *Volutospina luctatrix* (Sol.) in the Museum.

SPECIES ADDED TO THE MUSEUM
SINCE 1925.

	Reading Beds.	London Clay.	Bagshot Sands.	Bracklesham Beds (undivided).	Lower Bracklesham.	Upper Bracklesham.	Barton Beds (undivided)	Lower Barton.	Middle Barton.	Upper Barton.	Lower Headon.	Middle Headon (Brookenhurst Bed).	Middle Headon.	Upper Headon.	Osborne Beds.	Bembridge Limestone.	Bembridge Marls.	Lower Hamstead.	Upper Hamstead.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
CHAROPHYTA.																			
<i>Chara</i> , sp.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	..
" sp.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	..
<i>Tolypella</i> , sp.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	..
DICOTYLEDONES.																			
? <i>Acer</i> , sp.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
? <i>Apeibopsis</i> , sp.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Cæsalpinea</i> , sp.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Comptonia acutiloba</i> , Brongn.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
? <i>Elæodendron</i> , sp.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<i>Laurus Jovis</i> , Unger.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" sp.....	..	..	x	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
ANTHOZOA.																			
* <i>Balanophyllia</i> , cf. <i>desmophyllum</i> , Milne-Edw.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
BRYOZOA.																			
* <i>Adeonellopsis vatherelli</i> , Greg.....	...	x	...	...	...	x	...	...	x	...	...	...	...	...	...	...	...	...	...
* <i>Biselenaria</i> , sp. nov.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* ? <i>Calpensia</i> , sp.....	...	...	...	...	...	x	...	...	x	...	...	...	...	...	...	...	...	...	...
* <i>Hippoporina</i> , sp. nov.....	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...
* ? <i>Hippoporina</i> , sp.....	...	...	...	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...
* <i>Membranispora</i> , sp. nov.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x
* <i>Smittina variabilis</i> , Canu.....	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...
* " sp.....	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...
* <i>Umbonula cf. calcariformis</i> , Greg.....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BRACHIOPODA.																			
* <i>Orbiculoides</i> , sp.....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CRUSTACEA.																			
(MALACOSTRACA).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* <i>Propalaeon osborniensis</i> , Woodward.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x	...	...

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<i>Egipionum reticulatum</i> (Sol.).....	...	...	...	...	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...
* <i>Fusmitra</i> , sp.....	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...
* <i>Ficus londini</i> , Wrigley.....	x	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* <i>Hemipleurotoma macrobia</i> (Edw.).....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* " <i>?longeva</i> (Edw.).....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* " cf. <i>reticulosa</i> (Edw.).....	...	...	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...
<i>Megalocochlea pseudoglobosum</i> (d'Orb.) [= <i>Helix</i> <i>globosa</i> , J. Sow.].....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x	...	...	...
* [<i>Murex</i>] <i>?bartonensis</i> , Edw. MS.....	...	...	...	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...
* <i>Newtoniella charlesworthi</i> (Prestwich).....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* [<i>Pleurotoma</i>] <i>?microchila</i> , Edw.....	...	...	...	...	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...
* <i>Rostellaria</i> , sp.....	...	...	...	...	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...
* <i>Surcula</i> <i>?symmetrica</i> (Edw.).....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
* " sp. nov.....	...	x	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
VERTEBRATA.																			
(MAMMALIA).																			
* <i>Plagiolophus fraasi</i> , Stahlin.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x	...	...
<i>Theridomys aquaticus</i> , Aymard.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x	...	...	...
* " sp. nov.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	x	...	...	...
Additional species.....	0	11	7	0	0	14	0	4	5	4	0	0	1	0	3	3	2	4	0
Previously recorded.....	0	74	5	2	73	164	8	123	127	44	25	86	58	82	134	237	46	36	
Totals.....	0	85	12	2	73	178	8	127	132	48	25	86	59	32	164	539	50	36	

PALÆONTOLOGICAL NOTES.

Adeonellopsis wetherelli, Greg.—Rare at Alum Bay. It is the commonest of the Bryozoa found in the London Clay in the London area.

?*Calpensia* sp.—A single and damaged zoarium encrusting a large flint pebble found by Mr. Jackson in the Middle Barton at Alum Bay. If the genus is correctly determined it is new to the Bartonian of England.

?*Hippoporina* sp.—Two zoecia were discovered attached to the flint pebble mentioned above. New to the Bartonian of England.

Smittina variabilis, Canu.—Not uncommon in the Upper Bracklesham Beds at Whitecliff Bay. It is very abundant in the Lutetian of the Paris Basin.

Umbonula cf. *calcariformis*, Greg.—Traces of this species are found on large shells of *Ostrea* sp. in the London Clay at Alum Bay.

Orbiculoidea sp. nov.—A specimen presented by Mr. A. G. Davis, who discovered a number of examples in nodular masses of hard pyritic and argillaceous limestone crowded with *Astarte subrugata* (Edw. MS.) Wood., which occur near the base of the London Clay at Alum Bay. Miss H. M. Muir-Wood, M.Sc., to whom Mr. Davis submitted his specimens for expert examination, states that the species is undescribed and apparently new to the London Clay.

Panopea homi, Nyst.—A species originally described from the Middle Eocene deposits of Laeken, near Brussels; it differs from *P. intermedia* J. Sow., of the London Clay and its Basement Bed, by its much more inflated form, large umbones, and more gaping valves.

Tellina sp.—A single valve from the *Tellina* sandstone in the Upper Bracklesham Beds at Whitecliff Bay. The species is not in the Edwards collection at the British Museum, nor does it appear to occur in the Paris Basin.

Venericardia planicosta, Lamk.—Commonly found associated with *Turritella* about the middle of the London Clay in Alum and Whitecliff Bays. It is here taken to include *V. brongniarti* (Mant.), an unsatisfactory, imperfectly defined "species."

Clavilithes conjunctoides, Grabau.—The *Clavilithes* sp. nov. of the earlier catalogue, which is not uncommon in the Brockenhurst Bed at Whitecliff Bay, is to be referred to *C. conjunctoides* Grabau.

Clavilithes egregius (Beyrich).—I have collected one example of this rare species in the Brockenhurst Bed at Whitecliff Bay. For a critical discussion of the genus *Clavilithes*, see A. G. Wrigley's "Notes on English Eocene Mollusca, with descriptions of New Species. II. The Fusinidæ." *Proc. Malac. Soc.*, Vol. XVII, 1927, pp. 224-37.

Cf. [*Ena*] sp.—Unfortunately a very imperfect specimen, but apparently undescribed. Mr. A. S. Kennard, A.L.S., writes: "I do not think it is a *Megaspira*, and my guess is near to *Ena*. If the mouth were preserved it would be possible to fix the genus."

Conomitra sp. nov.—This form from the Upper Barton of Alum Bay closely resembles *C. sulcifera* (Edw. MS.), a slightly larger and longer shell from the Upper Bracklesham. It cannot be taken for any one of the numerous varieties of *C. parva* (J. de C. Sow.), from which it is distinguished by its larger size and longer form, by its bold sculpture of uniform, rounded spiral bands and by the absence of axial ribs or riblets on the last whorl.

Fusimitra sp.—A specimen from the Upper Bracklesham of Whitecliff Bay, although very defective, shows the essential characters of this genus.

Newtoniella charlesworthi (Prestwich).—A small, but quite distinct, specimen of a species which attains a length of 2½ in. at Sheppey, where it is common. Lower part of London Clay, Alum Bay. Very rare in Isle of Wight.

Rostellaria sp.—This species, fairly common in the Upper Bracklesham, requires careful comparison with Paris Basin fossils.

Surcula sp. nov.—An excellent single specimen from the London Clay of Alum Bay is distinct from all the described species of that formation. It has some resemblance to *S. inarata* (J. de C. Sow.) from the Bracklesham Beds, but differs from that species by the complete absence of axial ribs or nodes at all stages of growth.

TOWN ACCOUNT OF YARMOUTH, 1646

47

THE ACCOUNT OF WILL'M HIDE 1646

	£	s.	d.
Debett The Towne unto Will'm Hide as foloweth for			
Charges too London too Secure an Order fo' Meanes			
fo' A Minester	006	00	00
Mo' pd. Mr. Greshey fo' preaching of fifteen Sarmens as			
p' his Note Aperes	005	00	00
Mo' fo' A Clocke [cloak] for the Sargent	002	00	00
Mo' for Charges going to S' John Oglanders	000	03	00
Mo' pd. the fee farm And quitanse	001	00	04
Mo' pd. the Stewards fee	001	02	00
Mo' pd. the Kinges footemen when his Magesty Came			
into Towne	002	00	00
Mo' pd. unto his Magestyes padman*	001	00	00
Mo' pd. to A poore Mann that came outt of Irland	000	01	00
Mo' pd. Mr. Boothe fo' preaching 3 sarmens	001	00	00
Mo' pd. Will'm Combe fo' Mending of the pound	000	01	08
Mo' fo' the Leckteres Diners tow yeares And half Now			
Att Our Lady Day att 18d p' Weeke	009	15	00
Mo' is Layd Out p' Will'm F..kett fo' the Townse			
youse As p' the partickelers dooe Apeere	001	14	02
Mo' pd. Colecting the fee farm And towne Rente	000	02	06
Mo' pd. Tho' Sanders fo' going Diuers jorneyes			
[divers journeys] fo' the towne As Apeeres	000	08	00
Mo' pd. 6 Frensh Men that wer tacken p. the Irish	000	02	00
Mo' pd. A Irish Gentelwoman	000	01	00
Mo' fo' the Minesters Diners Sinse Our Lady Day	002	00	06
Mo' fo' part of the Charge of Entertayning of the			
Gentelmen that Came w'th the King to town	000	10	00
Mo' pd. Franes Jefery fo' worke done about the Blinde			
house† And Materyolles As p' his Note	000	09	11
1649 [Date in margin].			
	034	11	01

*Padman, or pad-groom—the groom who rode after his master.

†The Blinde house was the police "lock up."

1647

				£	s.	d.
Cred' the towne As foloweth'						
Of Charles Whitingstok' fo' A fyne fo' the house hee now						
Liveth in fo' One And Tenty years	...	...	...	008	00	00
Mo' of the towne Rentes	...	...	...	003	12	02
Mo' Re'd the fee farm	...	...	...	001	06	01
Mo' Reseaud the Wharfige	...	...	...	002	11	08
Mo' Reseaud of Margerett Losy fo' a Smol' peese of						
Ground sold by the Towne	...	...	...	000	10	00
Mo' Reseaud of Sr John Oglander Mayor And Burgeses						
the some of	...	...	...	003	17	07
				019	17	06
Rest Due unto Ann Hide the some of	...	...	...	014	13	07
				034	11	01

At a Lawday & Burrough Court holden in the Towne holl of Yarmouth before Thomas Bowreman Esqr Mayor & the other Cheife Burgesses theare assembled & in the presence of the Curia & other Inhabitants theare p'sent the xxiiij day of Aprill 1650. This accompt was shewed & allowed of to be a true accompt. J. G. Byllinghurst.

Reseved the 28 of September 1654 from the maire and burdigesses of Yarmoth the som of fortene pownds thirtene shillinges and seven penes in full satisfaction of the som above mentied I saie
 reseved as aforesaide
 by me Ann Hide

NOTES ON THE ACCOUNT.

By the REV. J. C. HUGHES, B.A.

The document transcribed above is a fragment of the Town Accounts of Yarmouth, which has been purchased from a London dealer in historical MSS., etc., for the Carisbrooke Castle Museum ; the most part of the Accounts are understood to be unfortunately lost. The fragment consists of accounts for the years 1646-47, presented to the Council by William Hide, who must have been the Treasurer. They appear to have been in no hurry to pay the balance due to him, for the account seems to have been presented again in 1649, a date added in the margin. A Council meeting in April, 1650, allowed it to be a true account, but it was only in September, 1654, that the balance due was paid to Ann Hide, presumably William Hide's widow.

The accounts derive special interest from the fact that three of the items relate to a hitherto unrecorded visit of King Charles I to Yarmouth. On Sunday Nov. 14th, 1647, the King came to Carisbrooke, seeking safety in the Isle of Wight. On the Monday he saw the gentry of the Island, summoned to meet him, and on the Thursday he paid a surprise visit to Sir John Oglander at Nunwell. It was most likely on another day of this first week that the King visited Yarmouth, in all probability with the object of ascertaining what amount of support he might look for in the Island.

Other items have to do with the minister of Yarmouth. The town appears to have been without a minister, and it needed an expensive journey to London to secure an order to raise the means to support one. They had now had a minister since Our Lady Day, but probably only coming over from elsewhere, as a charge is put down for his dinners. In the interim services appear to have been taken by a "lay reader" ; he is called a "lector," a word which in the mediæval church designated a lower clerical order, the chief duty of the lector being to read the lessons in church. Sermons were preached occasionally, and two ministers receive fees for these.

Relief is given to a poor man from Ireland, and to an Irish gentlewoman, and a puzzling item is 2/- paid to "6 Frenchmen that were taken by the Irish"—(the writer has apparently written "per" for "by"). It is difficult to say to what event this refers.

Some further particulars about William Hide, who presented this account, may be of interest. We have inferred that he died while the account was pending, and that the balance was paid to his widow.

This is confirmed by an inscription on a stone in the central aisle of Yarmouth Church, from which it appears that there were two William Hides, father and son, both Aldermen of Yarmouth, and that William Hide senior died on May 21st, 1648. The inscription, kindly transcribed by Mr. J. E. Furmage, is as follows:—

HERE LYETH YE BODY	HERE LYETH YE BODY
OF MARY HIDE THE WIFE	OF WILL'M HIDE
OF WILLIAM HIDE	GENT AND ALDE'MAN
ALDE'MAN SONN	OF THIS TOWNE WHO
OF SAID WILLIAM ON	DESEESD THE 21ST
OTHER SIDE THE	OF MAY 1648
DAVFTER OF DAVID	ALSO MR WILLIAM HIDE
AND DOVZ GOODALL	SON OF THE ABOUE
GEWHO DESEESD	INTERED YE 8TH OF MARCH
THE 19TH OF APRELL	1679
1660	

NOTES.—Dauffer—A dialectal form. “Daughter” is rhymed with “after” in *The Pilgrim's Progress*.

Douz—Short for Dowsabel, a not uncommon name of the period.

Gewho. Was the writer aiming at a form of the pronoun similar to the *quho*, *quo*, etc., of old Scotch dialect?

Yarmouth Church had only recently been rebuilt after one of its destructions in the French wars. Sir John Oglander (*Memoirs*, p. 9) describes the consecration, “which wase p'formed by ye Bischop of Salisbury, Doctor Davenett, on ye 11th of March, 1626, I beinge then present, and a great many gentlemen of owre Island, Mr. Hyde, of Berkshyre, beinge then Meyor, whoe kept an Inne, and there gave ye Bischop and all us entertaynement at a ordinarye.” We may conclude that Mr. Hyde, mayor in 1626, was the William Hyde, alderman, who died in 1648. A further point known about the family is that William Hide, junior, was the issuer of a Yarmouth token, described by Mr. H. E. Jacobs in *Spink's Numismatic Circular*, Sept., 1927:—

Obv. Will. Hide his half.peny=W.B.H.

Rev. In South Yarmouth. 1667=A Ship.

Thomas Bowreman, mayor in 1650, was in all probability Thomas Bowreman of Brook, who was elected to represent the Island in Parliament in 1656.

A SUPPLEMENTARY LIST OF ISLE OF WIGHT LEPIDOPTERA.

By H. G. JEFFERY.

The species now recorded are additional to those noted in Mr. Frank Morey's "A Guide to the Natural History of the Isle of Wight," 1909, and to those in a supplementary list by Mr. H. F. Poole, published in Part II of the Proceedings of the Isle of Wight Natural History Society for 1921.

The following list of 60 species not on record in the above publications and the notes to follow on new localities or other matters of interest, while contributing to a fuller knowledge of the Lepidoptera of the Wight, should not be looked upon as anything more than imperfect. It is probable that the occurrence of other species is known to visiting entomologists whose names or addresses are unknown to me, and it is also possible that there are notes in magazines overlooked by me or to which I have not access. Furthermore, although the Island is a comparatively small area, there are many places now visited but seldom by an entomologist that would repay intensive working. We have barely 450 Micro-Lepidoptera recorded out of the 1299 on the British list; therefore it should not be difficult to add another 50 species in a few years by the efforts of a few resident workers attacking the Micro-groups.

As to the sources of the following records; from time to time lists and notes of collectors and observers have been sent to the Hon. Secretary of our Society, and these records are duly acknowledged under each species. The Entomologists' Monthly Magazine has yielded important notes on our local moth fauna, one being an addition to the British list by Prof. E. G. Waters, M.A. In the years 1923-24 there was published in the Entomologists' Record a "List of the Lepidoptera of Hampshire and the Isle of Wight" (omitting many groups of the Micro-Lepidoptera), compiled by Mr. W. Fassnidge, M.A., for the Entomological Society of Hampshire and the Isle of Wight, whose headquarters are at Southampton; in this list the Isle of Wight records are largely those given in Morey's "Guide" and the supplementary list in our Proceedings for 1921. There are, however, a few valuable contributions by some visiting and one resident entomologist which I have incorporated.

In the present list the nomenclature of the Families, Genera, and Species, together with the abbreviations of Authors' names and the sequence of Species, are those of "A Revised Handbook of British Lepidoptera," by Edward Meyrick, B.A., 1928.

CARADRINIDAE.

Cuculia asteris Schiff. Freshwater (W. S. Pearce, *Hants Ento. Soc.* list).

Monima (Taeniocampa) opima Hubn. Parkhurst Forest, at Sallow (H. G. Jeffery).

STERRHIDAE.

Sterrha (Acidalia) ochrata Scop. Barrett mentions the Isle of Wight as a locality for this species and is quoted in South's "Moths of the British Islands."

HYDRIOMENIDAE.

Trichopteryx (Lobophora) carpinata Borkh. (*lobulata* Hubn.). St. Lawrence, at light (Major H. H. S. Scott); Parkhurst Forest, at Sallow bloom (H. G. Jeffery and S. Wakely); Woodside, (S. Wakely).

Eupithecia valerianata Hubn. Blackwater and Birchmore, a series bred from larvæ feeding on the petals of *Valeriana officinalis* (H. G. Jeffery).

E. linariata Fabr. Shide, at street lamp (H. G. Jeffery).

E. lariciata Freyer. Lynn Plantation, in numbers (H. G. Jeffery).

E. nanata Hubn. Shide, at street lamp (H. G. Jeffery).

Plamyria (Melanippe) hastata Linn. Wootton and Hamstead (R. H. Fox); Osborne Woods, 1926 and 1928 (G. Nobbs).

SELIDOSEMIDAE.

Selenia lunaria Schiff. Osborne (G. Nobbs); one at Shalfleet, 1911 (Dr. S. L. O. Young).

POLYPLOCIDAE.

Palimpsestis or *Fabr.* Wootton, a few bred from larvæ feeding on Aspen (H. G. Jeffery and S. Wakely).

LYCAENIDAE.

Thecla w-album Knoch. It is recorded as "very rare, one locality only" (E. Cornell in *Hants Ento. Soc.* list).

PHYCITIDAE.

Homoeosoma cretacella Ross. (senecionis). I.W. (J. W. Corder in *Hants Ento. Soc.* list).

CRAMBIDAE.

Crambus paludellus *Hubn.* Shalfleet (L. T. Ford).

PTEROPHORIDAE.

Alucita galactodactyla *Hubn.* Seaview (H. Ashby, *Hants Ento. Soc.* list); Staplers and Parkhurst Forest (H. G. Jeffery); Combley (S. Wakely). Evidently widely spread. Larvæ feed on *Arctium Lappa* in a very characteristic manner.

HETEROGENEIDAE.

Apoda (Heterognea) limacodes *Hufn (testudo Schiff.)*. Two at Shalfleet (Dr. Young).

ZYGAENIDAE.

Procris statices *Linn.* Shanklin (Rev. I. M. Hick, *Hants Ento. Soc.* list).

PHALONIADÆ.

Euxanthis (Argyrolepia) aeneana *Hubn.* Shalfleet (L. T. Ford).

TORTRICIDAE.

Eulia (Tortrix) ministrana *Linn.* Parkhurst Forest and Combley (H. G. Jeffery).

Tortricodes tortricella *Hubn (hyemana Hubn.)*. Parkhurst Forest and Wootton Woods, Common (H. G. Jeffery).

Peronia cristana *Fabr.* Shalfleet (L. T. Ford).

P. shepherdana *Steph.* Two specimens in the marsh at Freshwater on Aug. 31st, 1926 (E. G. R. Waters, *Ento. Month. Mag.*, 1928, p. 46). Hides by day amongst dense tangles of *Spiraea Ulmaria*; occurs throughout September.

EUCOSMIDAE.

Evetria purdeyi *Durr.* Isle of Wight is given as a locality in Meyrick's "Revised Handbook."

Ancylis (Cydia) Meyrick's "Handbook," **Grapholitha** South's list), **achatana** *Fabr.* Shalfleet (L. T. Ford).

Eucosma corticana *Hubn.* Parkhurst Forest (H. G. Jeffery).

E. (Epiblema) Meyrick's "Handbook," **Ephippiphora** South's list), **trigeminana** *Steph.* Shalfleet (L. T. Ford).

Polychrosis (Sericornis) fuligana *Haw. (abscissana Doubl.)*. A local species of which the Isle of Wight is given as a locality in Meyrick's "Revised Handbook."

Argyroproce (Penthina South's list, **antithesia** *Stainton)* **corticana** *Hubn. (picana Frol.)*. Parkhurst Forest, in the few places where Birch is growing (H. G. Jeffery).

Laspeyresia (Stigmonota) roseticolana Zell. (*germarana* Wilk.). Shalfleet (L. T. Ford).

GELECHIADAE.

Gelechia sororculella Hubn. Woodside. Bred from spun shoots of Sallow (H. G. Jeffery).

G. lentiginosella Zell. Shalfleet (L. T. Ford).

Phthorimaea (Lita) acuminatella Sirc. (?*gracilella* Staint.). Southern slope of St. Boniface Down. As an example of early emergence one was noted on April 9th, 1928, by E. G. R. Waters *E.M.M.*, 1928, p. 140.

COSMOPTERYGIDAE.

Limnoecia (Laverna) phragmitella Staint. Shalfleet (L. T. Ford).

OECOPHORIDAE.

Chimabache (Lemnathophila) phryganella Hubn. Porphfield and Staplers (H. G. Jeffery); Parkhurst Forest (S. Wakely). Common. Flies in midday sunshine very late in the year, end of October and early November.

Drepressaria atomella Schiff. (*scopariella* Hein.). Shalfleet (L. T. Ford).

HELIOZELIDAE.

Heliozella sericiella Haw. Parkhurst Forest, common (H. G. Jeffery).

Antisphila treitschkiella Fisch. v. Rosl. Shalfleet (L. T. Ford).

HELIODINIDAE.

Pancalia leuwenhoekella Linn. Ventnor, April 19th, 1927; the very early date is evidence of the mildness of this favoured spot (E. G. R. Waters), *E.M.M.*, 1928, p. 141.

ELACHISTIDAE.

Elachista nigrella Haw. (*consortella* Staint.; *aridella* Hein.; *pullella* Herr.-Schaff.; *gregsoni* Staint.). Ventnor; mostly of the form described as *consortella* Staint. in Meyrick's "Handbook" (E. G. R. Waters, *E.M.M.*, 1928, p. 141).

COLEOPHORIDAE.

Metriotes modestella Dup. Woodside, in flower of *Stellaria holostea* (H. G. Jeffery).

Coleophora vibricella Hubn. Shalfleet (L. T. Ford).

C. saturatella Staint. (*tinctoriella* Coverdale). Shalfleet (L. T. Ford).

C. inulae Wocke. Shalfleet (L. T. Ford).

GRACILARIADAE.

Lithocolletis messaniella Zell. Ventnor. Common among *Quercus ilex*, the larvæ mining the under sides of the leaves. E. G. R. Waters, *E.M.M.*, 1928, p. 141). A common and widely distributed species in England although the food is an introduced tree.

L. oxyacanthæ Frey. Ventnor, seen as early as April 8th. (E. G. R. Waters, *E.M.M.*, 1928, p. 141). Larvæ mine underside of Hawthorn leaves.

Ornix anglicella Staint. (*fragariae* Staint.). Ventnor, seen as early as April 8th. (E. G. R. Waters, *E.M.M.*, 1928, p. 141).

PLUTELLIDAE.

Cerostoma caudella Linn. (?*mucronella* Scop.). Ventnor, one on April 9th, 1928. E. G. R. Waters, *E.M.M.*, 1928, p. 141.

TINEIDAE.

Trichophaga (Tinea) tapetiella Linn. (*tapetzella* Staint). Common at Newport and probably throughout the Island (H. G. Jeffery). One of our household pests, the larvæ feeding on fur and wool.

Monopis (Blabophanes) rusticella Hubn. Newport (H. G. Jeffery). Common. This species used to be considered one of the house pests by Stainton and some later entomologists. I have bred it freely, feeding on the dried ligaments of bones and dried undressed animal skin, but never on dressed skin or fur.

M. ferruginella, Hubn. Newport (H. G. Jeffery). In abundance, together with an Hymenopterous parasite, feeding on raw dried animal skin. It is evident that the most acceptable food of this and the preceding species is dry animal gelatine. In a state of nature this would occur in the remains of animal carcasses.

M. crocicapitella Clem. (*Lombardica*, Hering; *Heringi*, Rick.). Woody Bay, St. Lawrence (Lord Walsingham). This species is very similar to *ferruginella*. Questions concerning the identity of this and allied members of the genus **Monopis** and the uncertainty of their natural food are fully discussed by E. R. Banks in the *E.M.M.*, 1912, pp. 39-44.

Tineola biselliella, Hum. Newport, and probably all over the Island (H. G. Jeffery). A minute clothes and fur moth; very destructive, being so prolific and certainly double-brooded here in the Wight.

Tinea fulvimitrella, Sodof. Shalfleet (L. T. Ford); Parkhurst Forest, on a dead but standing fungus-covered Oak, one living specimen and one dead in a cobweb (H. G. Jeffery).

T. corticella, Curt. (*emortriella*, Zell.). Parkhurst Forest. Common, sometimes in profusion, the larvæ feeding in the fungus *Stereum hirsutum* on dead oak trees, branches or logs (H. G. Jeffery).

T. parasitella, *Hubn.* Parkhurst Forest, where it occurs plentifully with **T. corticella**, but it seems to be much more widely distributed both in Parkhurst Forest and the Island generally, as I have found it at Newport, Blackwater, and in the Wootton district (H. G. Jeffery).

T. pallescentella *Staint.* Newport. Another clothes moth, being the fifth species recorded as occurring in the Wight (H. G. Jeffery).

NEPTICULIDAE.

Nepticula basiguttela, *Hein.* "The Isle of Wight" is given as a locality in Mayrick's "Revised Handbook." The larvæ mine the leaves of Oak.

N. suberivora, *Staint.* Southern slopes of St. Boniface Down, Ventnor (E. G. R. Waters). Larvæ April, 1927. Imagoes bred from the 17th to 30th May in numbers. A long paper on the finding, breeding, and identifying of this interesting addition to the British list of Lepidoptera appeared in the *Ento. Month. Mag.*, 1928, pp. 1-4. It was originally named and described by Stainton in 1869 from specimens found in 1867 at Cannes, in the South of France, where the food plant is the cork tree, **Quercus suber**; at Ventnor it was found feeding on **Q. ilex**. It is remarkable that until now the species had not been detected anywhere since Stainton described it. Doubtless it was introduced into the Island with the food trees, either **Quercus ilex** or **Q. suber**; any information on the introduction of these alien trees into the Island would be very acceptable.

MICROPTERYGIDAE.

To the student this is a most interesting group, being characterised by some primitive structures, habits, and metamorphoses which link the Lepidoptera with the mandibulate insects, some species in fact being almost inseparable from the Trichoptera (Caddis-flies).

Micropteryx aruncella *Scop. (sepella Fabr.)* occurs in Parkhurst Forest (H. G. Jeffery).

M. calthella *Linn.*, occurs in countless numbers in the spring in Parkhurst Forest, hanging on the flowerheads of a small *Carex* and feeding on the pollen. It is probably general in the Island, for I have seen it in many districts: Staplers, in buttercups; at Wootton, on May blossom, etc.

Notes on Species Previously Recorded.

As the following notes relate only to species recorded in our two previously published lists, I have followed the names of species and their sequence as given there, *i.e.*, in accordance with the "Entomologist" List by Richard South. It is of interest to note that many species recorded previously only by that excellent naturalist A. G. More have now been confirmed.

Our immigrant Lepidoptera have appeared in increasing numbers in the last few years, indicating more favourable seasons for these species in their continental habitats; 1928 was quite the best season for some years.

RHOPALOCERA.

Colias hyale was reported as taken by several collectors in 1928 in many districts, but never freely.

C. edusa was spread all over the Island and abounded in several localities; one was seen still flying in the sunshine on the 18th Nov., 1928, near the shore between St. Lawrence and Niton, by Mr. T. A. Lloyd, a very late record. The variety *helice* was reported to be very general and proportionately more numerous than is usual.

Argynnis selene and *A. euphrosyne*, after a period of decline, were certainly on the up grade last year in Parkhurst Forest. *A. aglaia* and *A. adippe* have become really scarce. *A. paphia* is but a shadow of its former self in the days when I have seen four in the net at one stroke in Parkhurst Forest.

Melitaea aurinia has shrunk in its localities to, I believe, one, and is reported by Mr. Reginald Fox to be losing ground there. The locality to the west of Parkhurst Forest mentioned in Mr. Poole's list in Morey's "Guide" had a splendid number flying in 1912, but in the following winter this ground was under water for many weeks and a good search in the next spring produced only two larvæ, and one of these was Ichneumoned. About 1918 or 1919 this spot was put under the plough. It is of considerable interest to know that Mr. G. Nobbs is trying to establish this species in the Wight with stock from the Ringwood localities.

M. cinxia has so far (1928) continued to improve its standing. Colonies exist in the northern and central districts and in several places on the south side of the Island.

Vanessa c-album. This species was known as long ago as 1856 to have died out in a great many localities in England where it formerly was abundant, and although named in A. G. More's list of I. of W. butterflies, it then probably belonged to the past. In the western counties it always held its own and was even common in places, and for some years there has been noted a tendency for it to spread again; specimens have been seen to the east as far as Norfolk, Suffolk, Essex, and Kent, and to the south in Devon, Wilts, and Hants. The following records of its occurrence in the Wight may be due to natural movements from the Mainland rather than artificial introduction or migration from the Continent. The earliest recent record is Combley, 7th Sept., 1921 (Col. West). Early in August, 1927, a worn male was captured at Valerian flowers at Brooklands, Freshwater, another was seen on the same day but not caught; a pair were taken at the same place in 1928 (H. Y. Mansfield). On 8th Oct., 1927, one was caught near the

Recreation Ground, Ryde, flying in company with *V. io* and *V. atlanta* (A. Bevis). Two were seen flying together in a Sandown garden, 1926, and on three different dates in the autumn of 1928 single specimens were seen flying in a garden at Binstead (R. H. Fox). A perfectly fresh one was brought to me alive for identification by Miss E. Morgan, having been just caught in her garden at Gunville, and afterwards released. If unmolested for a year or two this species may become again established to grace our lanes and gardens. Mr. E. K. Goffe, Hon. Secretary of the Entomological Society of Hampshire, writes (May 17th, 1929): "Numerous examples of *Polygonia c-album* have occurred during the last few years in South Hampshire, one having been seen right in the town of Southampton. Several reports of its observance were made at meetings during 1928."

Epinephele tithonus var. *mincki*. Parkhurst (Major H. H. S. Scott).

Thecla betulae. Larvæ occur regularly at Shalfleet (Dr. Young).

Lycaena astrarche, with orange spots in margin almost absent. Ventnor (Rev. J. E. Tarbat); var. *quadripunctata*, Freshwater Down (Dr. Young).

L. corydon var. *semi-syngrapha*. Freshwater, 1920 (Dr. Young).

Limnitis sibylla var. *nigrina*. A specimen of this rare variation was seen and watched at close quarters sitting on a spray of Bramble flowers, Yarmouth, I.W., July, 1925 (Dr. Young).

SPHINGES.

Deilephila livornica. The larvæ of this rare visitor to our country are not often seen, but Mr. Farn recorded 6 or 7 from Ryde, July, 1870, feeding on Vine and Centaury (South's "Moths of British Islands").

Chaerocampa elpenor. Larvæ have been rather plentiful of late years in the gardens of Newport and neighbourhood, feeding on Fuchsia (H. G. Jeffery).

C. nerii. One was caught at Niton on the night of Sept. 6th, 1926, and is now in the collection of Mrs. F. Anderson, Ealing.

Smerinthus ocellatus. I have known larvæ fairly frequent on Sallow in the central districts (H.G.J.).

Macroglossa stellatarum. After some years of scarcity it is interesting to record this sun-lover as being seen at Chale, Sept., 1928 (Miss E. M. Read).

M. fuciformis. Generally well represented in the West Wight (R. H. Fox).

M. bombylifformis. Has been taken at Fattening Park (G. Nobbs) and on several occasions in Shalfleet parish (Dr. Young), and is well represented in West Wight (R. H. Fox).

Sesia asiliformis (*vespiformis*, Linn.). A few in Parkhurst Forest (S. Wakely).

Zygaena lonicerae. See appendix to list in Morey's "Guide." The Rev. A. C. Hervey's record of this species still needs confirmation.

Some entomologists think *lonicerae* prefers the Downs and *trifolii* the lowlands, but in the Wight it is certainly *trifolii* that occurs in many places on the Downs.

Z. trifolii is very widely spread and abundant, showing great variation.

Ab. lutescens has been taken at Hamstead, 1928 (R. H. Fox); var. *minoides* Selys., Bembridge (Blenkarn), *E.M.M.*, 1912, p. 199. Twice from a colony on central ridge of the Downs, and one at Bridlesford (H.G.J.). In my experience the form with central spots united is commonest; the var. *orobi*, Hubn., spots placed well apart, is quite infrequent, but always to be found. Var. *glycirrhizae*, Hubn., spots 3, 4, and 5 united, once only from the Downs colony. Var. *basalis* Selys., spots 1, 2, 3, and 4 united, frequent on the Downs, and one from Steephill. A very dark specimen with the red spots reduced to a few scales, hind wings with broad dark borders, and the red reduced to about half the normal, occurred on the Downs. The Downland colonies, the wet meadow one at Bridlesford, and all the typical ones are out the first week in June, but about the third week in July the race or subspecies *palustris* Oberthur appears in some wet meadows by the River Medina; it is a large form showing little or no variation in the spotting, but curiously liable to fade.

Z. filipendulae var. *hippocrepidis*, Stephens=*tutti* Rebel. This is a small early race with sixth spot weakly developed; recorded with at least two colonies in West Wight (Dr. Young).

BOMBYCES.

Sarothripus undulatus. Parkhurst Forest, bred from larvæ and taken at Sallow (S.W.).

Hylophila prasinana. Fairly common, Parkhurst Forest (H.G.J.).

Nola cucullatella. Widely distributed and not uncommon, Ryde, Arreton, and Newport (H.G.J. and S.W.).

N. strigula. Parkhurst Forest (H.G.J.).

N. confusalis. Street lamp, Newport; Luccombe (S.W.).

Nudaria senex. Caught at dusk and bred from larvæ, Woodside (H.G.J.); in osier-bed at Pan, Newport (S.W.).

Lithosia griseola and var. *flava* (*stramineola*) occur freely at Carisbrooke (H.G.J.) and Alverstone (H. Taylor).

Nemophila plantaginis. Not uncommon, Combley Down (Col. West).

Spilosoma urticae. Another specimen taken in Sandown Marshes and exhibited at South London Ento. Soc., Jan. 23rd, 1912 (Blenkarn). A larva near Pan Common, Sandown, July 22, 1919; another in same place in Aug., 1925. Both emerged in the spring following capture (R. H. Fox).

Psilura monacha is far from uncommon in Parkhurst Forest (H. G. Jeffery and S. Wakely); Wootton (H.G.J.).

Trichura crataegi. One at a lamp, Newport (H.G.J.); larvæ found near Porchfield; a dozen specimens bred through 1923 (R. H. Fox).

Poecilocampa populi. Males sometimes in numbers at street lamps, Newport (H.G.J.).

Eriogaster lanestris. Larvæ in numbers at Gurnard, Lynn, and Gunville, the latter locality for several years in succession (H.G.J.).

Lasiocampa quercifolia. Larvæ occasionally at St. George's Down, on Blackthorn (H.G.J.); sometimes common feeding on Apple trees in nursery at Alverstone (H. Taylor).

Dicranura furcula. Bred from larvæ, Apse Heath (H. Taylor); at light, Newport (S.W.).

D. bifida. A few larvæ in some seasons in Wootton district on low growing aspens (H.G.J.); at light, St. Lawrence (Major Scott).

Stauropus fagi. Two larvæ at Shalfleet (Dr. Young).

Pterostoma palpina. Bred from larvæ feeding on Aspen, Wootton (H.G.J. and S.W.).

Notodonta dromedarius. Three larvæ on Birch, St. George's Down (S.W.).

Pygaera curtula. Seaview (H. Ashby, *Hants. Ento. Soc. list*); bred from larvæ off Aspen, Wootton (H.G.J.).

Asphalia flavicornis. Bred from larva, Wootton (H.G.J.).

NOCTUAE.

Moma orion is not rare in Parkhurst Forest (H.G.J.); occurs in Bouldnor Woods (H. Y. Mansfield).

Acronycta leporina. Shide (S.W.).

A. ligustri. Parkhurst Forest, at sugar, not common (H.G.J. and S.W.).

Coenobia rufa. One at Brading (R. H. Fox); not uncommon, flying after dark amongst rushes in swamp, Wootton (H.G.J. and S.W.); Freshwater (W. S. Pearce, *Hants. Ento. Soc. list*).

Tapinostola fulva. Parkhurst Forest, not common (H.G.J.).

Nonagria sparganii. Freshwater Marshes is a new locality for this very local species, recorded by (Rev. J. E. Tarbat), and (J. C. Moberly and W. S. Pearce in *Hants. Ento. Soc. list*).

N. gemminipuncta. Common in the central districts (H.G.J.).

Calamia lutos. One at light, St. Lawrence (Major Scott); one at street lamp, Shide (S.W.).

Hydroecia paludis abounds at sugar, Gurnard Marshes (H.G.J. and S.W.).

Aporophyla australis. The rare var. *orientalis* was taken in the Sandown district by V. E. Shaw, 1913, and exhibited at a meeting of the London Nat. Hist. Soc., Feb. 3, 1914. See *Ento. Record*, 1914, p. 272.

Laphygma exigua. This cosmopolitan pest, at present only a visitor to England, was taken at Binstead, 1927 (R. Fox); St. Lawrence, 3 specimens at light, 1926 (Major Scott); Apse Heath, 2 at light, 1923 (H. Taylor).

Neuria reticulata. Comes to sugar on the Brading Downs, but never freely (R. H. Fox).

Charaëas graminis. One on Downs above the Station, St. Lawrence (Major Scott).

Cerigo matura. West of Parkhurst Forest and common at sugar, Gurnard (H.G.J.).

Luperina cespitis. One at light, Brading (R. H. Fox); several at street lamp, Newport (S. Wakely).

Mamestra abjecta. Used to turn up at light in the Brading Marshes, perhaps a dozen in all, but not in recent years (R. H. Fox); 2 worn specimens at sugar, Gurnard Marsh (S.W.).

Miana arcuosa is fairly frequent in Parkhurst Forest, flying after dark (H.G.J.).

Acosmetia caliginosa. This very local species is widely distributed in the Wight. There are probably more colonies than one in the West Wight (R. Fox, Dr. Young, S. Wakely); Wootton (R. H. Fox); off a street lamp, Shide (S.W.); I have taken it on a Heath west of Parkhurst Forest and it is rather common in places in the Forest, where I have found the larvæ plentiful, always feeding on *Serratula tinctoria*.

Rusina tenebrosa. Pan Down (S.W.).

Agrotis lunigera. Comes freely to sugar, Bembridge Down (R. H. Fox).

A. cinerea has been taken several times in different years in Parkhurst Forest (S.W.).

A. tritici. Recorded as common at Freshwater and St. Helens in Hants. *Ento. Soc.* list; fairly common at St. George's Down (H.G.J.).

A. strigula is sometimes common on the Heath, St. George's Down, and Parkhurst Forest (H.G.J.).

Noctua brunnea. Parkhurst Forest (H.G.J.).

Panolis pinipeda. St. George's Down, at Sallow, not common (S. Wakely).

Pachnobia rubicosa is common in the central districts (H.G.J.).

Taeniocampa populeti. Bred from larvæ off Aspen, Wootton (H.G.J.).

T. miniosa is not uncommon locally at Wootton (H.G.J. and S.W.).

Oparina croceago. Frequent at Ivy and Sallows, Parkhurst Forest and district (H.G.J. and S.W.); Apse Heath, 12 in one night at Ivy blossom (H. Taylor).

Xanthia citrargo. Larvæ common on Lime trees at Osborne (G. Nobbs); came to light at Niton (Major Scott).

X. fulugo. Blacklands, Arreton, and Staplers (H.G.J.); Newport (S.W.).

X. flavago. Parkhurst Forest (S.W.).

Tethea subtusa. Wootton, bred from larvæ feeding on Aspen (H.G.J.); Freshwater, *Ento. Record*, IV, p. 258.

T. retusa. Bred from larvæ off Willow (H. G. Jeffery and S. Wakely).

Calymnia diffinis. One at light, St. Lawrence (Major Scott).

Dianthoecia carpophaga. Three at light, St. Lawrence (Major H. H. S. Scott).

Heccatera serena. Occurs in the central districts, Parkhurst, Pan Down, and St. George's Down (H.G.J.).

Dasypolia templi. In the autumn of 1875, when Ventnor had only five lamps on the Esplanade, a visitor recorded the taking of ten specimens of this species off these five lamps (C. J. Buckmaster, in *Entomologist*, March, 1876); other records are: Shanklin, three at street lamps, 1927 (R. H. Fox), and one, 1911, at lamp (H. F. Poole); one at light, Yarmouth (Dr. Young); Atherfield, one found wintering under a stone (a regular habit) on the cliffs, 24th November, 1891; larvæ plentiful in 1910 in lower stems of *Heracleum*, but all those brought away were infested with Hymenopterous parasites; Newport, one at street lamp, 6th November, 1912 (H.G.J.).

Epunda lichenea. Shanklin, at light, 1927-8 (R. H. Fox); one at street lamp, Shide (H. G. Jeffery); fairly frequent at St. Lawrence (Major Scott); Shalfleet, one at light (Dr. Young).

E. lutulenta. Freshwater, common; St. Helens, fairly common (*Hants. Ento. Soc.* list); St. George's Down (H.G.J. and S. Wakely).

E. nigra. Generally common, St. George's Down and District (H.G.J. and S.W.); Rew Down, abundant at sugar on one occasion (R. H. Fox).

Cleoceris viminalis. One, Parkhurst Forest (H.G.J.).

Hadena dissimilis. Very common at sugar, Gurnard Marsh (H.G.J. and S.W.).

H. pisi. St. George's Down, larvæ sometimes plentiful on *Ulex nanus* and Bracken (H.G.J.).

H. genistae. Near Newport and Wootton (H.G.J.); St. Lawrence (Major Scott).

Xylina ornithopus. A few yearly at Ivy in the central districts (H.G.J.).

Asteroscopus sphinx. One at light, Shide, 24th Nov., November, 1924 (S. Wakely).

Cucullia chamomillae. Alverstoke, one at rest (H. Taylor).

Habrastola tripartita. Highwood Lane (S. Wakely).

Plusia pulchrina. Shanklin, fairly frequent at dusk (R. H. Fox).

Helica tenebrata. Staplers, Blacklands, Arreton Down, Mersley Down, Watergate (H. G. Jeffery); Cranmore (S. Wakely).

Heliothis dipsacea. St. Lawrence, rare (S. W. Dale, *Hants Ento. Soc.* list).

H. peltigera. One Brading Marshes, September, 1928 (R. H. Fox); Ventnor, four specimens (E. Cornell, *Hants Ento. Soc.* list).

H. armigera. Ventnor, one (E. Cornell, *Hants Ento. Soc.* list); Freshwater, one at sugar, 11th Sept., 1911 (Rev. J. E. Tarbat).

Chariclea umbra. Borthwood (H. Taylor).

Erastria fasciana is more or less common in Parkhurst Forest (H.G.J. and R.H. Fox).

Toxocampa pastinum has turned up of late in many localities: Cowes, Sandown, Wootton (R. H. Fox); Gurnard Point, Woodside (H.G.J.); Freshwater (Rev. J. E. Tarbat); Ryde (A. E. Burras, *Hants Ento. Soc. list*).

Zanclognatha grisealis. Fairly common in the central districts.

Z. tarsipennalis. Parkhurst Forest, Mersley Down (H.G.J.); Borthwood, plentiful (H. Taylor).

Pechypogon barbalis. Marvel lane (H.G.J.).

Brephos notha occurs regularly in the Wootton district, haunting the tops of the taller Aspens (H.G.J.).

GEOMETRAE.

Epione apiciaria. Not uncommon at several places in central districts (H. G. Jeffery).

E. advenaria. Quite frequent in Parkhurst Forest (H.G.J.).

Angerona prunaria is common, sometimes abundant, in Parkhurst Forest, showing a fine range of variations. It is easily put on the wing in the late afternoon; flies freely just before and after sunset; seldom seen at dusk (H.G.J.).

Ellopiopsis prosapiaria. Combley and Staplers (H.G.J.).

Eurymene dolabraria. Often seen in Parkhurst Forest (H.G.J.).

Eugonia erosaria. At light, Newport (H.G.J.).

Amphidasys strataria. Males not infrequent at light, Newport (H.G.J.).

Boarmia consortaria is not uncommon in Parkhurst Forest (H.G.J.).

Tephrosia coronaria. Often plentiful in Parkhurst Forest, resting on Pine trunks (H.G.J.).

T. crepuscularia and *T. bistortata*=*biundularia* Bork. Plentiful in Parkhurst Forest. The darker form begins to fly about the third week in March and continues throughout April. The first of the light form appears about the second week in May, darker ones again in June and July. So much do they merge one into the other in colours that it is impossible to separate them without the dates of capture (H.G.J.).

Geometra papilionaria. Apse Heath, a few (H. Taylor); one at St. Lawrence (Major Scott).

Nemoria viridata. Abundant at Porchfield in 1920, but not since (R. H. Fox); west of Parkhurst Forest (H.G.J. and S.W.).

Zonosoma porata. Not infrequent in Parkhurst Forest and Shide, at light (H.G.J.).

Z. punctaria. More common than the last, Parkhurst Forest, St. George's Down, and central districts (H.G.J.).

Z. linearia. Two at light, St. Lawrence, (Major H. H. S. Scott).

Z. annulata. Several near Mersley Down, Parkhurst Forest (H.G.J.); Wootton (S. Wakely).

Asthene luteata. Mersley Down (H. G. Jeffery); St. Lawrence (Major Scott).

Acidalia trigeminata. Parkhurst Forest, fairly frequent (H.G.J. and Major Scott).

A. interjectaria. Common near Arreton Down (H.G.J.).

A. virgularia. Often in Newport and district (H.G.J.).

A. subsericeata. Common in the central districts (H.G.J.).

A. imitaria. Most districts around Newport (H.G.J.).

Bapta temerata. Very local but common, Mersley Down (H.G.J.); St. Lawrence, several every year (Major Scott).

B. bimaculata. Parkhurst Forest and Mersley Down, quite frequent (H.G.J.).

Numeria pulveraria. Staplers, Combley Down, and Mersley Down (H.G.J.).

Minoa murinata. Wootton, 1928 (R. H. Fox).

Aspilates gilvaria. Broken cliffs east of Sandown (H.G.J.).

Ligdia adustata is common in all central districts (H.G.J.).

Hybemia leucophaearia. Parkhurst Forest (H.G.J.).

H. aurantiaria. Parkhurst Forest (S. Wakely).

Larentia multistrigaria is common on the Heaths, St. George's Down, and Parkhurst Forest. Flies very early in the year and is over soon after the first Sallow bloom opens (H.G.J.); St. Lawrence (Major Scott).

L. olivata. St. Lawrence, generally a few, but sometimes in numbers (Major Scott).

Emmelesia adaequata. The I. of W. is again given as a locality in Meyrick's "Revised Handbook." I see no reason whatever to presume an error; see list in Morey's "Guide."

Eupithecia venosata. St. George's Down (S. Wakely).

E. subfulvata. Whitecroft (H.G.J.).

E. plumbeolata. Occurs on border of Mersley Down not uncommonly; *Melanpyrum*, the food plant, is abundant there (H.G.J.).

E. abbreviata. Parkhurst and Wootton, common (H.G.J.).

E. pumilata. Parkhurst, Newport, and Shide (H.G.J.).

E. coronata. Carisbrooke, Parkhurst, Mersley Down (H.G.J.).

E. rectangulata. Shide (H.G.J.).

Lobophora halterata. Wootton, 1923, one off the trunk of an Aspen (S. Wakely); again in 1928 (R. H. Fox).

L. viretata. Occasionally at St. Lawrence (Major Scott); Blackwater, 1925, a few off a fence (S. Wakely).

Thera variata. Since the publication of Mr. H. F. Poole's list in Morey's "Guide," Messrs. Prout and Major Robertson have differentiated *T. variata* (Schiff) and *T. obeliscata* (Hubn). Our common English species is *T. obeliscata* (Hubn); this occurs abundantly in Parkhurst Forest with a great deal of variation in size and

markings. *T. variata* (Schiff) I have not yet found, nor is it in any of the lists submitted.

T. firmata. I have taken this species early in Oct., 1913, and early in June, 1919, at Staplers plantation, and Major H. H. S. Scott has taken it at light at St. Lawrence, 17th July, 1926, and also at Parkhurst Forest, thus offering support to those who regard it as a double-brooded species.

Hypsipetes trifasciata=*impluviata*. Parkhurst Forest (S. Wakely).

Melanthia bicolorata. St. Lawrence (Major Scott).

Melanthia albicillata. Occurs in Parkhurst Forest, so far as is known only in a very restricted locality. I took it in 1891 and it was taken again in 1917 by Mr. S. Wakely.

Melanippe unangulata. St. George's Down, common (H.G.J.).

M. rivata. Occurs freely around Newport (H.G.J.).

M. galliata. Carisbrooke Castle (H. G. Jeffery).

Anticlea nigrofasciaria is common in Parkhurst Forest and occurs at Marvel (H.G.J.); Wootton (S. Wakely).

Campptogramma fluviala. Most collectors who work light in one form or another meet with this species. St. Lawrence (R. H. Fox, Major Scott); Newport (H. G. Jeffery); Mr. S. Wakely took quite a little series by persistently visiting lamps at Shide.

Phibalapteryx tersata is common in central districts (H.G.J.).

P. vitalbata occurs on St. George's Down (H.G.J.).

Triphosa dubitata. One by the Lukely, Carisbrooke (H.G.J.).

Eucosmia undulata. One at Staplers (H.G.J.); one at Parkhurst (S. Wakely).

Cidaria miata. One at Sallow, Parkhurst Forest, 1925 (S. Wakely); one hibernating on dead Pine trunk, Parkhurst Forest, Dec. 23rd, 1928—an example of perfect protective resemblance (H.G.J.).

C. picata is common on St. George's Down.

C. corylata is widely spread. Parkhurst Forest occasionally (H.G.J.); St. Lawrence, at light (Major Scott); Ningwood and Cranmore (S. Wakely).

C. suffumata. Very restricted in a lane at Marvel (H.G.J.); at light, St. Lawrence (Major Scott).

C. silacea. Woodside (S. Wakely).

C. pruinata. One at light, St. Lawrence, 11th Aug., 1923 (Major Scott).

C. testata. Carisbrooke, common (H.G.J.).

C. associata. Shide, at light (H.G.J.).

Chesius spartiata. Occurs at street lamps, Newport (H.G.J. and S.W.).

The additional localities and notes for the Pyralides, Pterophori, Crambi, Tortrices, and Tinea, are held over for publication in a future issue of Proceedings.

THE DUTCH ELM DISEASE IN THE ISLE OF WIGHT.

By Prof. E. B. POULTON, F.R.S.

When we came for our summer visit to St. Helens last year it was at once evident that an infective disease was prevalent among the elms. The dead trees, generally of moderate size, stood in little groups as if the infection had spread from one tree to another. One such group was noticed at Nettlestone Green, another at and near the highest point of the copse overlooking the Common at St. Helens. I therefore wrote to Dr. E. J. Butler, F.R.S., Director of the Imperial Bureau of Mycology, and by his advice communicated with Mr. T. R. Peace, of the Imperial Forestry Institute at Oxford. Dr. Butler also said that he thought it possible that the disease arose out of the War, when infection might have been conveyed to Europe by one of the many peoples collected together from all parts of the world.

Mr. Peace came to the Island towards the end of August, and in two or three days had made a note of 216 diseased elms on which he reported as follows:—

“I examined twigs from 62 trees of which 18 showed typical markings, while 34, although without the characteristic ring of spots, probably have the disease. Of those not examined internally 53 appeared to be certain cases and 93 fairly certain. So the situation is pretty bad. The worst patches I found are round St. Helens, particularly on the Brading Road, East Cowes, an area about one mile S.W. of Newport, and another near Merston. I could not see any correlation between the location of the diseased trees and the nature of the soil.”

Mr. Peace sent four lots of material from the Island to Miss Wilson at Edinburgh, in order that she might make a culture of the fungus. All of these—from Nettlestone, St. Helens, East Cowes (Osborne Cottage), and the St. Helens-Brading road, yielded *Graphium ulmi*, the fungus responsible for the disease.

The known outbreaks nearest to the Isle of Wight are at Angmering and Littlehampton in Sussex and Farnham in Surrey. The disease has not been found north of Cheshire and Northamptonshire, nor west of Worcestershire, but Wales, Dorset, and Somerset have not been investigated. Devon and Cornwall have been visited and no disease was found. There is no evidence that the disease has been present in England for more than five years.

It is possible that the disease is distributed by birds, for it generally appears first in the top branches where they perch. The greater intensity in the south and east suggests that it may have been first introduced by migratory birds from the continent. The mucilaginous nature of the spores appears to render wind distribution unlikely.

The rapid increase of the disease may be inferred from the fact that about 40 cases at Kettering have all appeared since the beginning of August, while the infected trees on the Huntingdon Road, Cambridge, increased in two months from 2 to 25 or 30.

All the common species of elm appear to be attacked.

Mr. Peace has kindly permitted me to make use of his "Report of Investigations of Dutch Elm Disease" in preparing these brief notes for our Society.

Oxford, 4 March, 1929.

NOTE.—Readers who wish for further details concerning the nature of this disease and of the symptoms by which it may be recognised cannot do better than procure a copy of the beautifully illustrated Leaflet No. 19, published by the Forestry Commission, 22 Grosvenor Gardens, London, S.W.1.

EDITOR.

BIRD NOTES DURING 1928.

By REGINALD H. FOX.

What can I say of our birds during the past year? No doubt you would like me to dash off some original, sparkling article dealing with them and their habits; of new species seen, or old and lost inhabitants come back to us. If only a Mocking-bird would have turned up, now, and delighted us with his ever-varying concert from some neighbouring copse; or the grand Sea Eagle, which once had her eyrie on the Culver headland, had come back to us to harry the sheep-folds, or thrilled us by carrying off some unwanted baby, and dropping it, quite gently, on the doorstep of Dr. Barnardo's Home, I should be able to spread myself in the best Journalese on such a theme and give you something to read about. But birds don't lend themselves to romantic schemes; they are, on the contrary, most exact and prosaic in their ways and movements; they carry out the same programme year after year, in the same order, at the same time, and leave us marvelling at their punctuality and precision. And so it has been in the year gone by, and I am left with no new story to tell of them and their ways.

I think both the migrant and resident birds kept up their numbers, and I have no special falling off of any one species to chronicle. Now and again, as March wore through and April began to smile, some bird-lover would come to me and tell me he had seen a Chiff-chaff, or heard a Willow-wren, and then, on some soft spring morning, one went out and found the countryside tenanted with scores of these and other migrant species; a day or two later, and a steel-blue Swallow flashed by as one was watching the ripple on the pond, and our other friends from over the water came to us, each true to his season, and filled the countryside with their merry music.

I always mention some Island birds of which we are exceptionally proud, and the Peregrines take pride of place. Four pairs nested on our coast, and three of these brought off their broods. The fourth pair, nesting at Luccombe, not a mile from the town of Shanklin, were destroyed while rearing their young. A fisherman, while out looking to his lobster-pots, saw two men appear at the top of the cliff, the falcons swept out, and both were shot. Though I could not get any evidence as to the identity of these soulless ruffians, I had strong suspicions. Pigeon fanciers have a constant feud with Peregrines, for Peregrines prey on pigeons; they always have done so, they always

will, and I have no doubt that some local "sport" with a loft of Homers not very far away from Shanklin committed the murders, and I much regret that he has, so far, escaped the punishment that is due to him.

Three pairs of Ravens nested with us again, and were undisturbed, and any bird-lover walking along our south and east coastline is unlucky if he doesn't come across this grand bird. Our Heronry did well, the inhabited nests increased in number and the young were duly reared.

I have no doubt our Sparrow-hawks, Magpies, Jays, and Crows have gained by the breaking up of so many of our larger estates. This means that the land is not so well preserved, and the "vermin," so-called, then get a chance, and they are quite clever enough to make use of it. The Crows in places breed in, or close to, some gardens that I know, and are there as tame and familiar as the Rooks. The Warblers and migrants generally were present in about their usual numbers; Swallows not too plentiful, Swifts decidedly scarcer than often. This was one more spring during which I never heard the Wryneck's querulous call. The bird seems to be leaving us. I wonder why?

Of our resident birds I have nothing new to report. The Green Woodpecker seems to be everywhere, and the Greater Spotted Woodpecker certainly increases, while his midget cousin, the Lesser Spotted Woodpecker, is still to be found, mostly on the north side of the Island. The last two birds largely inhabit the tree-tops, and so often escape observation. Goldfinches are splendidly abundant. Bullfinches are confessedly bad gardeners and I'm afraid many get shot in the spring, when they come very hard on the fruit buds. The bird means well, but is too wholesale in his operations. You can all watch the number of Sparrows decreasing in the towns as the motors displace the horse, but all round the farms sparrows are omnipresent and retain their marauding habits. We have too many Jackdaws round here—I write from Shanklin—largely owing to the fact that our cliffs supply them with endless nesting sites. The Jackdaw is a shameless egg-stealer and destroyer of the helpless young of our smaller birds and does them much harm during the breeding season.

The oil nuisance seems hardly to abate on our coasts, and the number of sea birds destroyed each year by the clogging of their feathers must be very large. Guillemots, Razor-bills, and Puffins lay but one egg each season, and thus, if the local stock gets reduced, the deficiency is not easily made good, and there must be many a rocky shelf and breeding-burrow now left untenanted on the splendid headland at Freshwater, which have previously been occupied by these birds for countless years. It sounds horrid advice to give, but I think the kindest thing any one can do when he comes across a wretched, clogged bird on the shore is to destroy it there and then, and so save it from inevitable

slow starvation. And if you see a man in our bay shooting maimed birds you may know it is the present writer.

We don't get a large variety of Waders here; fortunately, for us humans at least, our shores are mostly sand and not mud, and so the feeding areas for these birds are restricted to some spots on the northern side of the Island. If any one wants to hear the wild cry of the Curlew, mentioned so often in poetry and literature in general, they have only to visit the foreshore between Ryde and Wootton Creek, and they are almost sure to be successful unless it be during the three summer months when all the adult birds leave for their breeding-grounds. The Curlew nests now as near us as some of the Surrey commons. Snipe use our marshes in varying numbers according to weather conditions; now and again, especially when a frost sets in, they swarm there for a few days, but soon move on, leaving a few behind in particularly favoured spots. Can any one living on that side of the Island tell me if Snipe breed on the marshland between Yarmouth and Freshwater? An odd pair nest on the reclaimed land at St. Helens, I know. I heard of a good bag of Woodcock in Firestone Copse, a favourite haunt of these worldwide wanderers.

I must leave my bird-chronicle for another year. I think it would be an excellent thing if our Society would find some younger, fresher naturalist to "take on" in my place, and I would gladly help him with any data at my command. Please all of you give this matter your best consideration.

Now, don't be unkind and look up last year's "Proceedings" in order to see how closely I repeat myself. The birds "repeat" themselves, too, and don't give me many chances for original remarks. Let us hope that my "Genius" will help me to better things another time.

NOTE.—Mr. J. F. Wynne, of Deepdene, Shanklin, a very keen young ornithologist, has asked me to draw the attention of our members to the important results in the scientific study of the migration of birds which are being obtained by the systematic marking of birds under the scheme started by the Editors of "*British Birds*" in 1909. Packets of rings of standard sizes to fit the legs of almost all our wild birds may be purchased from the office of "*British Birds*," 326 High Holborn, London, W.C.1., and full instructions as to procedure and a schedule of birds to be ringed will be sent with each. Details concerning the progress of the scheme and a list of workers are published in "*British Birds*" about the beginning of each year. As the percentage of ringed birds recovered is naturally rather small, it is desirable that as many helpers as possible should take part in the work, and Mr. Wynne would be very pleased to hear from anyone in the Island who would like to co-operate.

EDITOR.

PHENOLOGICAL RECORDS FOR 1928. FOR NEWPORT & SURROUNDING DISTRICT.

The dates of the first flowering of the following plants were noted at, or near, Newport :—

Snowdrop	15th Jan.	Horse Chestnut	2nd May
Winter Aconite	19th Jan.	Hawthorn	16th May
Yellow Crocus	22nd Jan.	White Ox-Eye	12th May
Celandine	5th Jan.	Dog Rose	10th June
Hazel	9th Feb.	Black Knapweed	25th June
Coltsfoot	3rd Mar.	Harebell	6th July
Wood Anemone	14th Mar.	Greater Bindweed	23rd June
Blackthorn	20th Mar.	Ivy	29th Sept.
Garlic Hedge-Mustard	17th April	Devils-bit Scabious	Not noted

Migratory Birds first seen or heard :—

Chiffchaff	Not noted	Willow Warbler	10th April
Cuckoo	20th April	Lesser Whitethroat	Not noted
Swallow	11th April	Swift	26th April
House Martin	15th April	Nightjar	Not noted
Sand Martin	Not noted	Flycatcher	Not noted
Nightingale	30th April	Fieldfare	13th Jan.
Wryneck	Not noted	Redwing	13th Jan.

First singing of Birds :—

Song Thrush	3rd Jan.	Blackbird	5th Jan.
Missel Thrush	1st Jan.	Lark	22nd Jan.

Migratory Birds last seen :—

Swallow	27th Oct.	Sand Martin	10th Sept.
Swift	16th Aug.	Cuckoo last heard	20th June
House Martin	30th Oct.		

Insects first seen flying in the open :—

Honey Bee first visits flowers	23rd Feb.	Meadow-brown	
Queen Wasp	30th April	Butterfly	Not noted
Small White Butterfly	26th Mar.	Large Red-tailed	
Orange-tip Butterfly	3rd May	Humble Bee	5th April

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR 1928.

This table has been compiled by J. Dover, M.A., F.R.Met.Soc., from his own observations at Totland and records contributed by Miss N. G. Abercrombie, J. F. Jackson, F.G.S., Sir George Shedden, D.L., J.P., and others.

BAROMETER.

	Sandown.	Totland.	Ventnor.
Highest	30.597	30.576	30.636
Lowest	29.030	28.969	29.070
Mean	—	29.965	30.026

RAINFALL.

	E. Cowes.	Newport.	Sandown.	Totland.	Ventnor Hospital
Driest month, May	1.00	1.10	1.37	0.83	1.03 (Sept.)
Wettest month, Oct.	6.61	8.84	8.42	7.08	8.96
Wettest day	1.41	1.61	1.53	1.17	2.13
Rain days	170	184	219	167	176
Wet days	124	139	143	126	131

SUNSHINE.

Hours	Ryde.	Sandown.	Shanklin.	Totland.	Ventnor Hospital.
	1898	1936	1852	1816	2010

Jersey was the sunniest place in the kingdom with 2081 hours; Ventnor Hospital came next with 2010 hours. There were 58 sunless days at Sandown, 60 at Totland, and 69 at Shanklin.

	Ryde.	Sandown.	Shanklin.	Totland.	Ventnor Hospital.
9 years sunshine hours	1683	1775	1743	1724	1759
18 " " "	—	1777	1800	1752	1757
27 " " "	—	—	—	1757	1755

WIND DIRECTION.

	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
Newport	28	46	30	27	27	48	88	72
Totland	27	42	24	37	36	67	69	63
Ventnor	36	31	60	20	14	56	126	22

The feature of the year at Totland has been the windiness of November, with its total of 8610 miles of wind. The windiest week was Nov. 21-27, with 3682 miles; the windiest day Nov. 26th, with 814 miles. This was the windiest day I have ever recorded, the nearest approach to it being 776 miles on Dec. 13th, 1903. The total Quarter's winds were as follows :—

Miles of Wind.			Miles of Wind.		
Jan., Feb., March	...	18,749	July, Aug., Sept.	...	13,524
April, May, June	...	14,450	Oct., Nov., Dec.	...	20,140

RELATIVE HUMIDITY.

	E. Cowes.	Newport.	Totland.	Ventnor.
Year	82.0	76.0	79.8	81.2
Dampest month, Dec.	87.0	92.0	88.7	88.0 (Jan.)
Driest month, May	73.0 (June)	63.0 (July)	70.2	71.0

May 31st was the driest morning of the year at Totland Bay, with humidity 48 per cent. with N.E. wind and clear sky.

TEMPERATURE.

Winter Half (Nov.-April)			Summer Half (May-Oct).		
Max.	Min.		Max.	Min.	
49.8	38.5	E. Cowes	64.6	49.8	
50.9	37.9	Newport	64.7	48.3	
50.2	40.5	Ryde	65.3	52.2	
49.5	39.3	Sandown	64.9	49.9	
49.2	39.7	Totland	63.7	50.6	
50.7	41.5	Ventnor	64.2	52.8	
Warmest Day			Coolest Night.		
84.8 on July 15		E. Cowes	25 on March 12		
91 " " "		Newport	21 " Dec. 9		
88 " " "		Ryde	26 " March 14		
85 " " "		Sandown	23 " " 12		
84 " " "		Totland	23.8 on " 12		
84 " " "		Ventnor	25 on " 12		

The grass minimum at Totland fell to 18.9 on March 14 and Dec. 15.
The grass minimum at Newport fell to 15.0 on Dec. 9.

Last Spring Frost on Grass.

Totland, May 19 Newport, May 19.

First Autumn Frost on Grass.

Totland, Oct. 1 Newport, Oct. 1

Number of days in year with Frosts (30·4 or less).

In the Screen.	On the Grass.
E. Cowes, 23	E. Cowes, —
Newport, 28	Newport, 75
Totland, 20	Totland, 46

The sea temperature at Totland Bay was down to the unusually low figure of 39·6 Fah. on Jan. 1.

The following are the 13 coldest weeks at Totland in an average based on a continuous period of 42 years :—

Week ending.	Max.	Min.	Mean.	Week ending	Max.	Min.	Mean.
Dec. 24	45·9	37·6	41·7	Feb. 11	45·0	37·1	41·1
„ 31	45·8	37·8	41·8	„ 18	45·5	36·2	40·8
Jan. 7	45·4	37·5	41·4	„ 25	45·8	36·8	41·3
„ 14	45·5	37·4	41·4	March 3	46·1	36·7	41·4
„ 21	45·1	37·2	41·2	„ 10	46·9	37·6	42·2
„ 28	45·1	37·1	41·1	„ 17	47·9	37·4	42·6
Feb. 4	44·8	36·9	40·9				
				Means	45·8	37·2	41·5

It will be seen that there is little difference in the weekly averages.

WEATHER.

	E. Cowes.	Newport.	Totland.		E. Cowes.	Newport.	Totland.
Snow	—	5	5	Lightning	—	—	4
Hail	—	17	6	Thunder	5	9	11
Fogs	12	26	17	Solar Halos	—	11	34
Gales	—	14	18	Lunar Halos	—	8	6

RAINFALL AT VARIOUS ISLAND STATIONS.

	Inches.	Rain Days.	Wet Days.
Needles Golf Club	30·96	172	125
East Cowes	32·56	170	124
Ryde, Town Hall	33·43	174	123
Totland Bay	33·55	167	126
Cowes	33·98	177	137
Freshwater	34·31	180	131
Brighstone, Pitt Place	34·61	134	124
Bembridge	36·34	216	141
Niton, St. Catherine's	37·45	161	129
Ryde, Buckland...	37·45	230	140

RAINFALL AT VARIOUS ISLAND STATIONS—continued.

	Inches.	Rain Days.	Wet Days.
Wootton, Fern Hill	... 37·97	175	127
Wootton, Oak Lawn	... 38·49	180	130
Sandown	... 38·70	219	143
Ventnor, Flint Cottage	... 39·49	166	130
Ventnor, Hospital	... 39·94	176	131
Brighstone, Rectory	... 40·41	131	128
Bonchurch	... 40·48	172	141
Blackgang	... 40·97	161	129
Osborne	... 41·30	181	139
Newport	... 42·25	184	139
Shanklin	... 45·42	175	141
Godshill	... 45·44	173	145

NATURAL HISTORY AND ARCHÆOLOGICAL NOTES.

Upper Palæolithic Implement from Grange Chine (Fig. I). Among the flints bequeathed to the Carisbrooke Castle Museum by our late member, Mr. T. E. B. Gunyon, is a pointed flake from Grange Chine, Brighstone. This appeared to be of Upper Palæolithic form, and was submitted to Mr. Reginald A. Smith, F.S.A., who confirmed the age and stated that it was probably of the Late La Madeleine industry. It has battered work on the left edge from the point to about halfway down, and is a direct ancestor of the pygmy implements. The right edge shows a slight retouch, or chipping due to use. The opposite face to that figured is the bulbar surface of the flake, and on this face the point is retouched on the edge opposite the battering so as to produce a point of triangular section. Slight trimming towards the base is suggestive of hafting. Length $1\frac{3}{8}$ ins., maximum width $\frac{3}{8}$ in. Very thin, reddish iron-stained, and translucent. This is the first artefact recognised in the Isle of Wight as belonging to the Upper Palæolithic culture, a period of several thousand years.

H. F. Poole.

December, 1928.

Le Moustier Implement of Rare Type (Fig. II). Also found by the late Mr. T. E. B. Gunyon; is a small squarish implement from near Chilton Chine, Brighstone. It is in dark, yellow-stained flint with a patch of crust on one face. In general form it resembles a gun-flint and is of approximately the same size: $1\frac{3}{8}$ ins., by $1\frac{1}{4}$ in. It has been struck from a core and the opposite face to that figured shows a pronounced bulb of percussion, as can be seen at the lower left hand of the side view. A similar specimen is figured in a paper on the Le Moustier forms of Spain, "Las diferentes facies del Musteriense Espanol." H. Obermaier y José Pérez de Barradas. Madrid, 1924. Fig. 30.

H. F. Poole.

December, 1928.



FIG. I

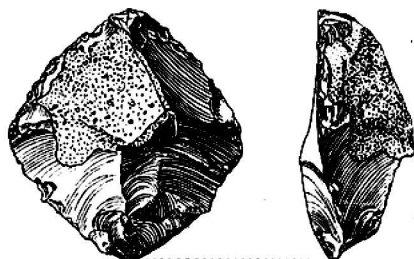


FIG. II

NATURAL SIZE

Fig. I.—La Madeleine "Point" from Grange Chine, Brighstone, I.W. Collected by T. E. B. Gunyon.

Fig. II.—Le Moustier Implement from near Chilton Chine, Brighstone I.W. Collected by T. E. B. Gunyon.

Romano-British Midden at Ventnor. During September and October, 1928, excavations were made in a piece of land towards the bottom of Castle Road, Ventnor, with the purpose of levelling for house foundations. The site is at the base of the Upper Greensand cliffs, where an extensive talus has accumulated. This talus is undoubtedly derived from the cliff, at the top of which the remains of a Romano-British "midden" exist. It was dug into horizontally, the excavated material being tipped on to the lower slope. The section showed a confused mixture of objects, bones, shells, etc., being thinly scattered in all directions in a matrix of Upper Greensand fragments. In the excavated material, and in the section, remains were found indicating the existence of a "midden" or rubbish-heap.

Food refuse in the form of shells of limpet, winkle, and oyster were common, and the garden snail, *Helix aspersa*, may be added, shells being numerous at all levels in association with the marine forms. Bones and teeth were not quite so frequent. The collected specimens have been kindly identified by Mr. J. Wilfrid Jackson, F.G.S., who finds that the following species are represented: Small Ox=*Bos longifrons*; Sheep, the Celtic variety; Horse, small variety; and small Deer (? Roe or Fallow); of the last only the distal end of a Radius was found, not sufficiently perfect to identify the species.

Pottery was present in small fragments, the shards having been further broken in their fall from the cliff top and the pieces scattered. It includes portions of plain "Samian," a Roman ware imported from the Continent, and many fragments of varying paste and thickness of presumably local manufacture.

The most interesting discovery is a hoard of Roman coins, about 270 having been recovered; these also had been scattered in their fall. They range from Valerian to Tetricus Junior, and would give a date of about 273 A.D. It is an interesting speculation as to why these coins were secreted in a rubbish-heap. Was it the lack of that present-day convenience the Bank, or were the coins obtained by unfair means and hidden?

H. F. Poole.

December, 1928.

Pressure-ridges in the Gore Cliff Landslide.—Probably the most interesting feature of the great landslip at Windy Corner was the very fine example of the effects of pressure in the moving ground which followed the second fall of rock from the face of Gore Cliff in September, the weight of which, when added to the enormous talus formed in July, immediately proved too great to be supported by the underlying sloping ground of Gault clay, already shaken by the first fall and fissured by the preparatory movements described by Mr. G. W. Colenutt, F.G.S., in his detailed paper. The subsidence of the fallen mass of stone set in motion the whole triangular area of sloping broken ground in the undercliff from the foot of Windy Corner to the sea at Rocken End, a distance of one-third of a mile, and along the coast from near the centre of Watershoot Bay to the cascade some two hundred yards beyond Rocken End, which is fully one-fifth of a mile. The whole of the Rocken End headland was driven bodily seawards, and the immense pressure forced up the shore from a little below the foot of the cliff to well beyond low-water mark of spring tides, forming a very distinct ridge of great blocks of stone, like a rough railway embankment, running in a curving course roughly concentric to the outline of the headland. It was difficult to estimate the amount of uplift, but I consider that the maximum was not less than ten to twelve feet. Many of the blocks were covered

with limpets, winkles, sea anemones, and huge growths of *Laminaria digitata* and calcareous algæ. It could be seen that the bank of rocks rested on a broad ridge of Gault clay, and in places this had been forced up among the blocks on the top of the ridge and enclosed pockets and streaks of shells, sand, and pebbles from the sea-bed. The ridge was very quickly undermined and levelled by the waves. In many places also in the undercliff between Windy Corner and the sea similar, but smaller, pressure-ridges were noticeable, forming long, low mounds from six inches to six feet in height running approximately at right angles to the direction of the motion of the slipping ground. Most were split by a fissure running along the crest of the ridge, or a little below it on the side opposite to the source of pressure, and along these cracks slabs of turf were pushed up on edge and even sometimes inverted and thrust forward, grass side downwards, over the surface of the ground. The whole area of undercliff affected by the landslide must have been in an extremely unstable condition, or the fall of what was, after all, comparatively a small quantity of rock would not have been able to set in motion a mass of material many times its own weight.

It is interesting to recall that elevation of the sea-bottom by landslip action occurred on a much greater scale between Lyme Regis and Seaton in December, 1839, after a very wet summer and autumn. The geological conditions there, just as in the Undercliff of the Isle of Wight, are eminently favourable to landslips on the grand scale; porous strata (Chalk and Upper Greensand) resting on impermeable clays (Lias), the whole dipping slightly towards the sea. It was estimated that about eight million tons of rock subsided and the pressure of the moving mass thrust up the sea-bottom, producing a reef nearly three-quarters of a mile long and forty feet high in places. As at Rocken End, the sea soon removed this remarkable feature.

October, 1928.

J. F. Jackson.

Petricola pholadiformis, Lamk. While searching for fossils in Thorness Bay in August, I found several dead shells of *P. pholadiformis* in burrows excavated in a seam of compact marl in the outcrop of Bembridge Limestone forming Sticelett Ledge. This boring shell, which outwardly bears a superficial resemblance to *Barnea candida* (Linn.), is a native of the Atlantic coast of the United States; its eggs or fry were accidentally imported with American oyster spat some years ago, and now the species is thoroughly naturalised along at any rate the S.E. coast of England, but it appears not to have been observed before in the Isle of Wight. The specimens from Sticelett Ledge were found in association with crowds of *B. candida* and a few *Pholas dactylus*, Linn. I have since found dead shells washed up at Hamstead, Whitecliff Bay, and Brook.

November, 1928.

J. F. Jackson.

Snails washed up after the **Blackgang Landslip**. The great movements in the broken ground below Windy Corner, near Blackgang, after the second fall of rock from Gore Cliff in the latter part of September, gave rise to extensive slipping of the cliff in Chale Bay at a spot immediately N.W. of Rocken End, and the talus so formed was at once attacked by the sea and considerably eroded. It was very interesting to note that for fifty yards or more along the rocky shore below Rocken End the line of drifted bits of twigs, grasses, seaweeds, etc., at high-water mark was crowded with land shells which had been washed out of the masses of soil, turf, and tangled vegetation carried down to the beach by the landslip. Some of the shells were old and bleached, but many still contained the remains of their occupants. A sample of this drifted material, about $\frac{3}{4}$ lb. in weight, contained over 200 specimens of nearly a dozen species, and the total number washed up must have amounted to very many thousands. Had these shells been drifted into some sheltered position where sediment was accumulating a layer rich in a surprising variety of land shells might have been formed, perhaps to delight the eye of some geologist in the very remote future; but it is improbable that he would be able to ascertain the actual cause of their abundance, and possibly he might be tempted to postulate climatic conditions highly favourable to snails to account for a deposit really due to their destruction under very unfavourable circumstances.

October, 1928.

J. F. Jackson.

Albino Sparrow at Parkhurst.—I have much pleasure in again recording an albino Sparrow (a this year's bird) among the Parkhurst Prison colony of *Accentor modularis*. This makes the third specimen during the past twenty-five years that I have recorded for the same locality. The first and second birds remained with us for two years. Their inveterate enemy, *Accipiter nisus*, was presumably accountable for their sudden disappearance, as I made diligent inquiries, but failed to elicit that the birds on either occasion had been locally trapped or killed.

September, 1928.

W. S. White.

A White Blackbird.—"A beautiful specimen of a white blackbird frequents the garden of Bedford Lodge, The Mall, Newport. It is a fine male, and is entirely white except for a small patch of black feathers on one wing."

January 28th, 1928.

I.W. County Press.

Tom Tit Sleeping in a Coco-nut Shell.—We always hang up several coco-nuts, one above the other, in our porch for the Tits. All last winter a Tom Tit slept in the lowest one, and as the jasmine had thrown

out long shoots I twined them round the coco-nut till it made quite a secluded little bower. This autumn I accidentally cut off the jasmine sprays, leaving the nest bare; since then the Tom Tit will not sleep in his old shell, but chooses one higher up. He does not mind our passing in and out, but if we climb up and look right into the coco-nut he will fly out and perch on a near-by tree until we go indoors, when he immediately returns to his bed-room. He frequently comes to feed from the fat which we have placed in some of the coco-nuts, and sometimes one of his companions will turn up to share in the feast. Last spring a Great Tit brought his whole young family here, but only for once; the Great Tits prefer to take their meals on the bird trays, as they are less friendly than the Tom Tits.

(Miss) Ethel M. Read.

*Little Gatcombe, Newport,
November, 1928.*

Tameness of Nesting Blackbird.—At the side of the house, built in the centre of a honeysuckle bush that is a mass of fragrant blossom, there is a Blackbird's nest, now with four young ones. From the first the female bird was unusually tame, and without showing the least alarm, whether sitting on her eggs or nestlings, she has daily taken food from my hand and allowed me to stroke her head and body.

(Miss) E. E. Morgan.

Berry Hill, Gunville, Spring, 1928.

Industry of Goldcrest.—A Goldcrest—a frequent visitor here—has spent the whole day in the garden. Inch by inch it has searched the fruit trees and hedges, never still, apparently, for one moment. One is led to wonder how many miles the dainty little thing travelled, and what number of insects it destroyed.

(Miss) E. E. Morgan.

March 15th, 1928.

Mixed Building Materials in Sparrow's Nest.—What little scavengers House Sparrows are! Recently when dislodging a nest as large as a football, which was in too close proximity to a bed-room window, I found on examining it that there had been collected a huge mass of feathers, some twigs, an abundance of roots and grasses, some little pieces of men's suitings, dress material, hair, rag, and white embroidery, some pieces of string, one piece being 45 inches long, and 18 yards of pink knitting wool, in ten pieces, the longest piece measuring 5½ yards.

(Miss) E. E. Morgan.

August, 1928.

Chaffinches' Strange Taste in Nest Decoration.—Conspicuous white spots in the fork of an apple tree led to the discovery of a Chaffinch's nest, and I found that instead of using lichens to finish the exterior, as the Chaffinch usually does, and of which there was an abundance close at hand, this pair of birds had lavishly decorated theirs with little pieces of paper about the size of confetti, which they had evidently torn with much hard work from some old magazines that were lying in the garden near an extinct bonfire.

(Miss) E. E. Morgan.

Gall on *Ruppia*, *Tetramyxa parasitica*.—In July, 1928, I observed a Gall in considerable abundance, on *Ruppia maritima*, in the salt-marsh pool and adjacent ditch at Newtown. I sent specimens to Mr. E. W. Swanton, the well-known authority on galls, who wrote to me as follows: "The *Ruppia* is galled by *Tetramyxa parasitica*, a member of the Phytomyxinae (Plasmodiophoraceae) group of the Mycetozoa or Fungus animals. It was first observed by Mr. D. A. Boyd in 1887 at Chapelton, West Kilbride."

J. Groves.

December, 1928.

Conchological Notes for 1928.—In 1927 our Secretary had a pond made in her garden, lined with concrete, 12 feet long, 6 wide, and 20in. deep. Water lilies from the mainland were introduced, which brought with them a small form of the fresh-water limpet, *Ancylus lacustris*. So far as is known this is the only foreign introduction. In October the following shells were introduced: Some sinistral *Limnæa peregra*, a very rare form reared in captivity; *L. palustris*, *Sphærium corneum*, *S. lacustre*, and *Pisidium amnicum*. It will be interesting to see how they fare with little or no mud in which to hibernate. In Jan., 1929, some further additions of the same species were made and a little of the *Elodea canadensis*.

An addition to the list in Morey's "Guide" is *Planorbis fontanus*, a single specimen of which was taken in one of the dykes between Alverstone and Newchurch.

Lionel E. Adams.

November, 1928.

