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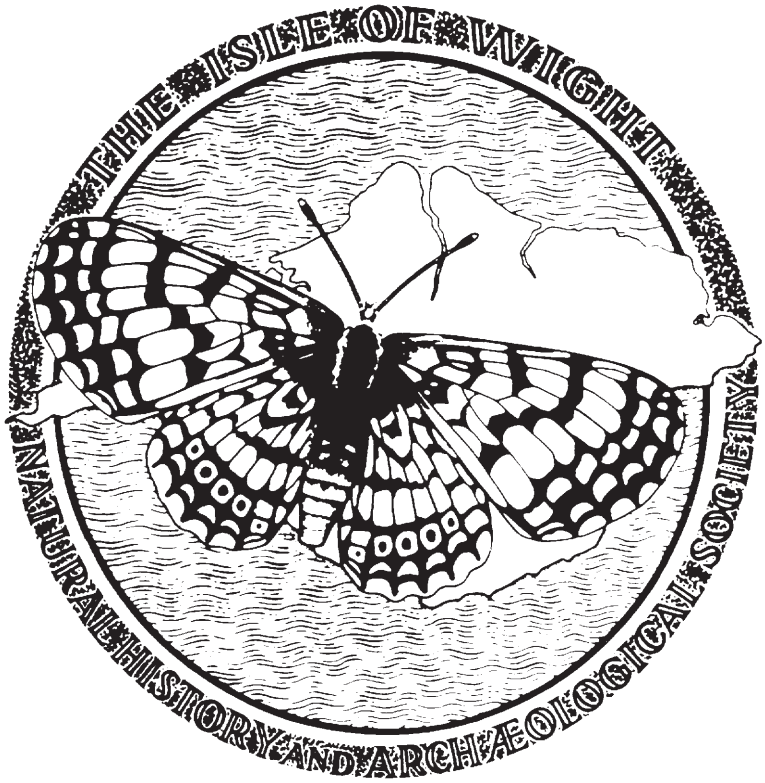
PROCEEDINGS of the ISLE OF WIGHT NATURAL HISTORY and ARCHAEOLOGICAL SOCIETY

VOL. 21 2005



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PROCEEDINGS

OF THE

ISLE OF WIGHT
NATURAL HISTORY AND
ARCHAEOLOGICAL SOCIETY

VOLUME 21 2005

ISLE OF WIGHT NATURAL HISTORY AND ARCHAEOLOGICAL SOCIETY

Objects
The promotion and advancement of the study of the flora, fauna, geology and archaeology of the county.

Activities
The Annual General Meeting, General and Sectional excursions, meetings and lectures are arranged throughout the year.

Publications
Proceedings and *Isle of Wight Birds* are published annually. Bulletins and Programmes produced biannually. All publications are issued free to members.

Subscriptions (subject to increase for 2004)

Ordinary Membership	£15
Family Membership	£20
Student Membership	£7

Forms of application and other information obtainable from the General Secretary.

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Editor of *Proceedings*	Richard Grogan Kervil Cottage Hollow Lane Chillerton Newport Isle of Wight PO30 3ET.	

Contents

OBITUARIES

Phyl Wood and Bob Wood

Phyl and Bob Wood died within six weeks of each other in the late spring of 2004 after a very happy and devoted marriage that lasted 62 years, Phyl, (b. 1920) an Islander, enjoyed a very successful career as did Bob (b. 1916) with G.E.C. but the pull of the countryside proved too strong and they gave their jobs up in order to run a village post office and shop at Wretham on the Breckland edge. Here they managed to buy land which was turned into a wildlife refuge, especially for injured birds. In 1978 they had the opportunity to live at Newtown and it was then that they became Society members, bringing with them much natural history experience. They continued their work with injured birds and developed a specialisation in rehabilitating birds of prey, swans and oiled seabirds, and sometimes helping to train new R.S.P.C.A. recruits. In recognition of their work the Society made Phyl an honorary member but did recognise that Bob took an equal share of the work load as members were quick to see when visiting their garden and aviaries.

Phyl became the Secretary for the Newtown Reserve and was instrumental in setting up the Mercia Seabroke Award with a group of Society members and then acting as a key player in assisting the transfer of Newtown over to the National Trust and English Nature in 1996. In 1997 and after 19 years of volunteering with Bob, as wardens at Newtown they decided to retire to Thorley where they developed another wildlife friendly garden and looked after a few injured birds until 2002.

However it is the "Crows Nest" at Newtown with its wildlife friendly garden, their house full of books, and their warmth and friendliness that members will remember with great affection. Visions of the swan they cut out of the ice at Newtown that took over the garage; the Black throated Diver in the bath; or the Long eared Owl glaring from the owl box in the aviary, will remain in many members minds for a long time.

Mercia Seabroke

Mercia Seabroke joined the Society in 1958, and became the first woman President in 1963, a position of which she was justly proud. Mercia was born at Bishops Waltham on March 22nd 1910 and her mother came from a large Romany family. Mercia was very proud of her background and developed a strong independent mind which she put to good use when she moved to Marsh Farm, Newtown. Mercia was married to George Seabroke in 1936 and soon began to appreciate the value of wildlife of the Newtown estuary and the adjacent woodlands She was already, at that time, an excellent naturalist specialising in botany and ornithology, and her love of sailing enhanced her knowledge of the estuary.

In 1947 Mercia became involved in the monthly wetland bird surveys. She campaigned with other key members in the late 1950s to stop a nuclear power station being built at Hamstead on the western side of the estuary. This led to the realisation of the vulnerability of the whole of Newtown to this kind of threat. In 1960 Mercia and a dedicated band of Society and other interested people helped with the establishment of the Newtown Nature Reserve. Mercia became its first warden and helped to instill a love of natural history in younger visitors with her knowledge and experience.

In 1970 Mercia was awarded the Duke of Edinburgh Countryside Award in recognition of her dedication and hard work at Newtown.

In later years Mercia still maintained a keen interest in her garden, full of unusual plants. She maintained her diaries with all her bird records often illustrated with one of her watercolour paintings. Members of the Society will remember the encouragement she gave to them to pursue their interests

and it was with this in mind that the Mercia Seabroke Award was set up in the early 1990s to enable members to further their knowledge to the benefit of the society and the Island's wildlife.

The very creation of the Newtown Nature Reserve may never have been realised if Mercia had not shown the drive and vision way back in the 1930s that paved the way for its eventual creation. We have much to thank her for and in October 2005, the bird hide at Newtown was renamed 'The Mercia Seabroke Hide' in recognition of the great contribution that Mercia made to conservation at Newtown.

Val Gwynn and Barry Angell.

Proc Isle of Wight nat. Hist. Archaeol. Soc 21 (pub 2006) :

FLOWERING PLANTS AND FERNS – 2004

Colin R. Pope

Since the publication of The Flora, good finds continue to be made. This is a personal selection of the more interesting records made during 2004 with an emphasis upon new sites for our rarest or not recently recorded species, and alien species which appear to be increasing naturally. It is not comprehensive; many more species records have been added to the database. In particular, many alien species, particularly casual records, have not been included here. This report includes records which add significantly to the information already published in The Flora.
The abbreviations used at the start of the accounts are:
N. Native; C. Casual Alien; E. Established Alien; and [ ] Extinct .

Adder's-tongue (*Ophioglossum vulgatum*)
N. A relict population of around 100 fronds found in a patch of turf around 1 metre square outside the south block at St Mary's hospital, Newport. 4990, PS.

Southern Polypody (*Polypodium cambricum*)
N. A single plant of this, the rarest of our Polypody ferns, at Carisbrooke Castle on the wall of the donkey house building, with *P. interjectum*. 4887, PS.

Marsh Fern (*Thelypteris palustris*)
N. Frequent in very wet willow carr at Langbridge marsh, Newchurch 5686, CP. This is a historic site which was last visited in 1972, by Bill Shepard and Reg Kettell.

Black Spleenwort (*Asplenium adiantum-nigrum*)
N. A single plant on scrub-shaded south facing chalk bank at Idlecombe Down. This is a most unusual location for this fern on the Island. 4585, AM.

Mousetail (*Myosurus minimus*)
N. Recorded from two sites where it has not been seen for well over one hundred years. A few plants in a muddy gate entrance at Week Farm, Whitwell 5378, CP. Two plants in a trampled gateway at Hamstead Farm 4091, RL.

Rough Poppy (*Papaver hybridum*)
N. A 'new' site for this arable plant. About 30 plants in a set aside field near Dog Kennel cottage, Thorley. 3788, PS.

Prickly Poppy (*Papaver argemone*)
N. A good year for this scarce poppy. Several plants at Lake Allotments 5883, BSBI.
In addition, PS recorded this plant from several 'newly recorded' sites: Field off Strawberry Lane, Mottistone 4184 with *Filago vulgaris*; arable field at Billingham, Kingston 4881; new area of land at Bowcombe 4687; and a set-aside field off Sandy Lane, Heath Hill, Shorwell 4682.

Upright Chickweed (*Moenchia erecta*)
N. A good year for this species. It was recorded from several 'new' sites by PS: Gore Down 4977; Castle Hill, Mottistone 4183; by the track to plantation at Mottistone Down 4084; and on the old raised seawall at Bexley Point, Carpenters, St Helen's 6187.

Annual Knawel (*Scleranthus annus*)
N. It was encouraging to receive reports of this rare species from two previously unrecorded stations. Frequent in arable field near Sainham Farm, Godshill 5281, GT; field below Burnt House Lane, Alverstone 5885 GT.

Night-flowered Catchfly (*Siliene noctiflora*)
N. Another set of welcome records; this plant has not been confirmed from the Island since 1990. Single plant in maize pheasant crop at Rowborough Bottom, Rowborough valley 4584, SB; about 5 plants in field margin near Dog Kennel Cottage, Thorley 3788, PS/MB.

Amphibious Bistort (*Persicaria amphibian*)
N. Recorded from two new bodies of water in the Brighstione area, which is now the Island stronghold for this species. At Limerstone Farm reservoir and Waytes Court Farm reservoir, Broad Lane, abundant in the latter. Both 4382, DD.

Hybrid knotweed (*Fallopia* x *bohemica*)
E. A first Island record for this hybrid, recorded during the BSBI weekend. A large clump at Sandown by the A3055 roadside 5984, PG.

[Rock Sea-lavender (*Limonium binervosum* ssp. *binervosum*)
N. We now have absolute proof that Rock Sea-lavender did grow on the chalk cliffs at the Needles headland. A herbarium sheet labelled 'Downs near Freshwater, I.W. July 1889' ex Hb Leslie Beeching Hall BM shows two good flowering specimens (**Fig. 1**). L.B. Hall was only 14 years old when he collected this material. It has come to light through FR, who determined the material to subspecific level. Sssp. *binervosum* was to be expected as this subspecies is the same as the nearest population geographically, on the Sussex chalk cliffs at Cuckmere.]

Hybrid Violet (*Viola* x *intersita*)
N. Several robust plants on a bank behind a bunker at Porchfield Ranges were determined as the hybrid by Alan Silverside. A first record for this fertile hybrid, which forms readily when the two parents, *Viola canina* and *V. riviniana,* come into contact. 4490, BSBI. Fortunately, pure Heath Dog-violet still survives elsewhere on the Ranges meadows.

New Zealand Bitter-cress (*Cardamine corymbosa*)
E. Ventnor Botanic Gardens 5476 naturalised in gravel; and at a garden centre at Freshwater, 3487, PS. These are our first records for this alien species which seems to be inadvertently spread by the nursery trade.

Danish Scurvygrass (*Cochlearia danica*)
N/E? Spreading on main road verges at Cowes and particularly at East Cowes through to The Racecourse, CP. These plants must have arisen from seed transferred on vehicle tyres from mainland traffic, rather than from local stock. It has taken many years for Danish Scurvygrass to become established on Island road verges, although it is now commonplace on main highways on the mainland. Other saltmarsh species may start to appear in these verge communities and are worth looking out for.

Chaffweed (*Anagallis minima*)
N. An exciting new Island site for this very rare plant. Found in some quantity in a damp ditch alongside a public footpath at Grammars Common, Brighstone 4183, PS. It was found growing with *Isolepis setacea* and *Carex viridula* ssp. *oedocarpa*.

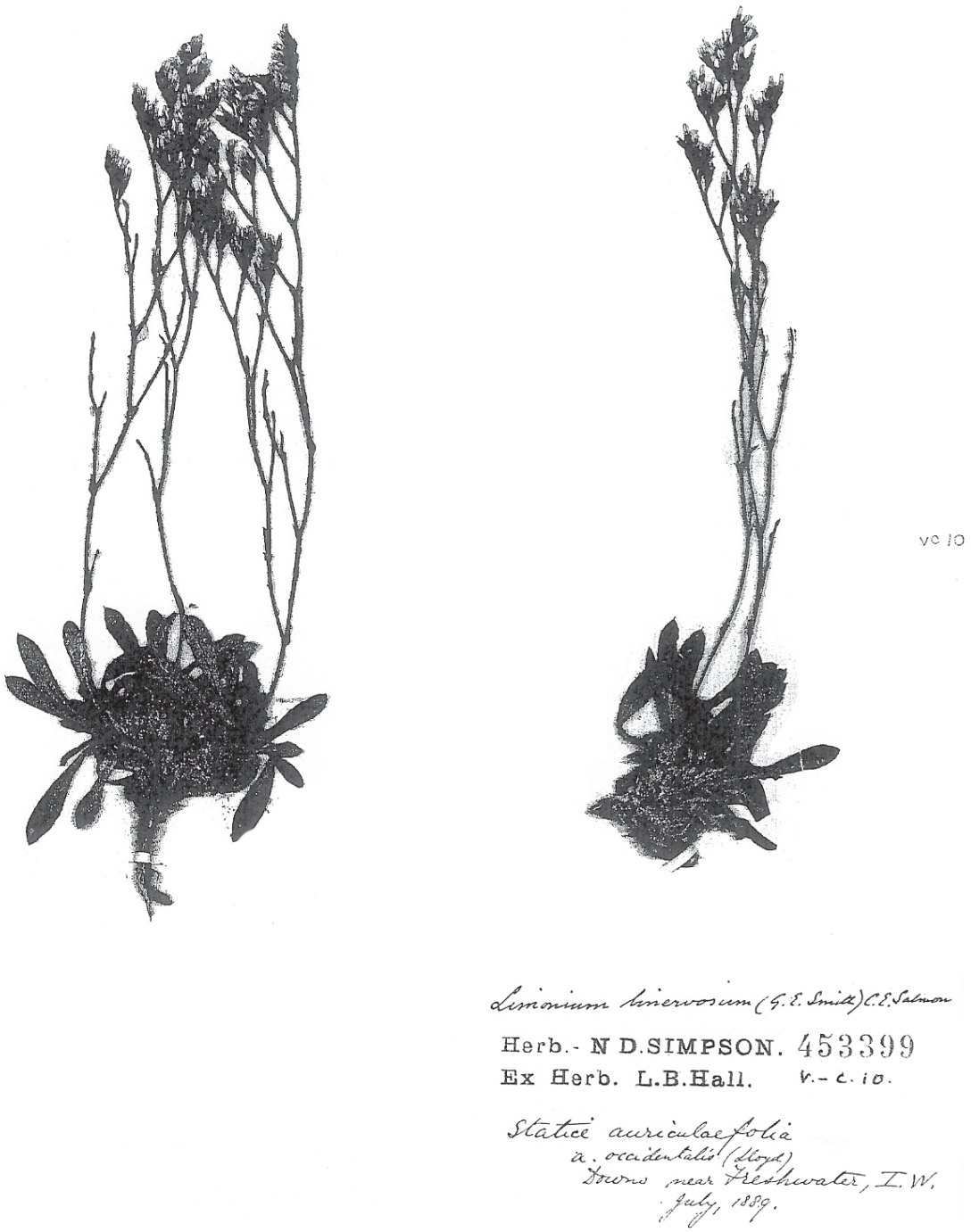

Fig. 1 Herbarium sheet of *Limonium binervosum*
'Downs near Freshwater, I.W. July 1889' British Museum

Rue-leaved Saxifrage (*Saxifrage tridactylites*)
N. A new site at Carisbrooke, although close to a known extant site. About 100 plants on the first floor roof of the Eight Bells public house 4888, PS.

Spring Vetch (*Vicia lathyroides*)
N. A new Island site for this scarce plant. Four plants in dry, sandy grassland on top of the hill at Stenbury Down 5379, AC.

Narrow-leaved Everlasting-pea (*Lathyrus sylvestris*)
N. A new site at Puckaster Bay landslip; several plants in bracken/bramble scrub. 5175, SC.

White Melilot (*Melilotus albus*)
E. Abundant in a field to the south of Limerstone 4482, MB. It was subsequently reported from nearby Samber Hill 4581, TT.

Water-purslane (*Lythrum portula*)
N. Found on Mottistone Common in a pool on the main track. First modern record from this site. 4084, CP.

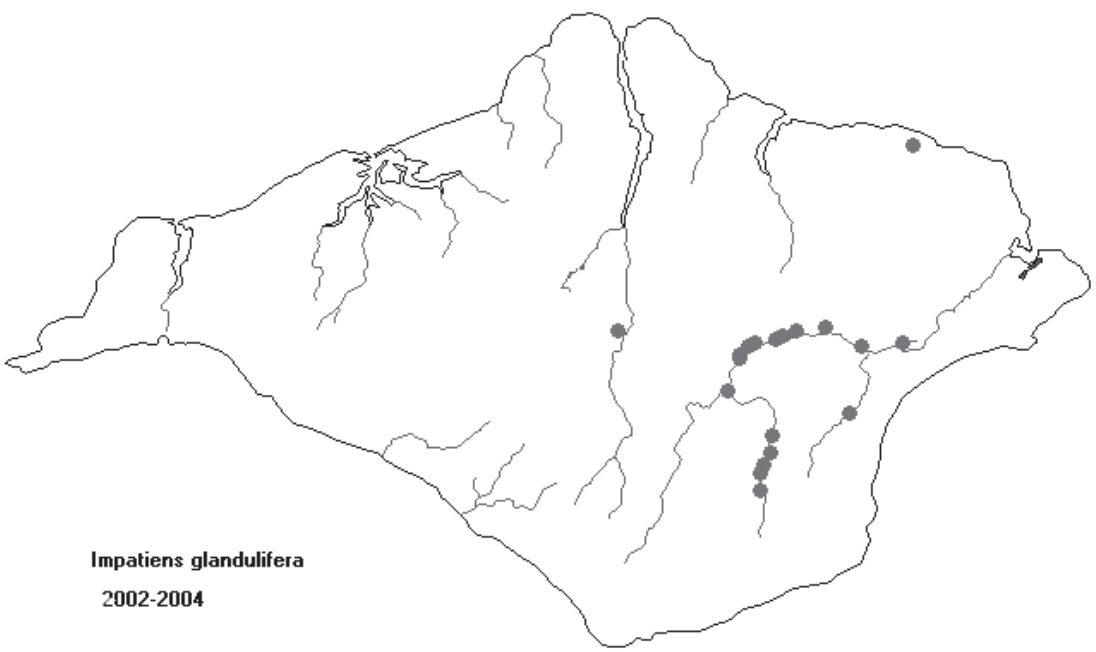

Fig. 2 Map of distribution of *Impatiens glandulifera* 2002-2004

Pale Willowherb (*Epilobium roseum*)
N. This, the scarcest of our willowherbs of disturbed ground, was recorded from flower beds in Ventnor Park 5577, EC.

Indian Balsam (*Impatiens glandulifera*)
E. This plant now appears to be establishing itself in suitable places along the banks of the Eastern Yar, and some of its tributaries (**Fig 2**). Evidence suggests that the plants may have originated from one or more introduced populations in the headwaters of the River Yar catchment. AM/JR/DD.

Bur Chervil (*Anthriscus caucalis*)
N. Found in an area of the Island where it has not been recorded since Bromfield's time. Growing on the roadside at Presford Farm, Sandy Way, Shorwell 4682, and in localised patches at Bucks Farm, Sandy Lane, Shorwell 4781. Both PS.

False Alkanet (*Cynoglottis barrelieri*)
C. Persisting in a long-deserted garden at Sandrock Springs, Blackgang 4976, PG. A new Island record for this alien species.

Fly Honeysuckle (*Lonicera xylosteum*)
C. Growing in woodland near Little Hermitage, St Catherine's Down, 4978, JW. A first Island record for this alien species.

Hairy-fruited Cornsalad (*Valerianella eriocarpa*)
N. A new site was discovered this year for this extremely localised, rare plant at Brook Down chalk pit 3985, PS. The plants were growing in a small, discreet area of parched grassland on a sunny ridge. 2004 was a good year for this species. There were very large populations at Afton Down and Culver cliff-top, comprising many hundreds of plants, BSBI.

Meadow Thistle (*Cirsium dissectum*)
N. Confirmed as still present, but heavily grazed, at Bohemia Bog 5183, GT. This was a historic site, originally reported by Robin Attrill.

German-ivy (*Delairea odorata* (*Senecio milkanoides*)
E. A first record of this alien species which will continue to spread if winters remain benign; it flowers very late in the season. Spreading from a garden at Gully Road, Seaview, into surrounding secondary woodland 6391, DB (conf. EJC). The plant was originally brought to this garden from Guernsey. Also present in small quantity in Gully Road, 6390, MB.

Bristle Club-rush (*Isolepis setacea*)
N. Present in remarkable quantity and luxuriance in a ditch in Combley Great Wood 5489, CP.

Cyperus Sedge (*Carex pseudocyperis*)
N. Recorded from two new sites this year: Langbridge marsh, Newchurch, 5686, where there were just two clumps CP/BS/SB; present in a triangular field between Redhill Lane and stream, near Godshill Park Farm 5481, GT.

Lesser Quaking-grass (*Briza minor*)
N. A new site for this arable plant and the first modern record from the south of the Island. Several hundred plants found growing in a roadside field margin at Stenbury, near Whitwell 5279, GT.

Whorl-grass (*Catabrosa aquatica*)
N. Several records this year for the under-recorded but uncommon wetland grass. Bohemia Bog 5183, GT; small valley west of Moor Farm, Godshill 5282/5382, GT; Hill Farm, Newchurch 5685, GT; and tributaries between Nettlecombe and Stenbury, draining into the Yar 5277/5278, CP.

Drooping Brome (*Anisantha tectorum*)
C. Re-seeded area at St Mary's Hospital, about 20 plants near the education centre 4990, PS. This casual has only been recorded once previously from the Island, in 1858 in a grass crop at Bembridge.

White Helleborine (*Cephalanthera damasonium*)
N. This orchid had a remarkably good year at Ventnor. There were around 180 flowering plants beneath Holm Oak on St Boniface Down, the highest count ever made here. 5678, AB.

Broad-leaved Helleborine (*Epipactis helleborine*)
N. Recorded from an unexpected site. There were at least 20 flowering plants beneath Poplar shelterbelts around greenhouses at Great Budbridge 5283, IB.

Bird's-nest Orchid (*Neottia nidus-avis*)
N. A single spike was found in woodland below the Wishing Seat, at Bonchurch Landslip 5878, JS. This is the first modern record from here.

Recorders

AB	Andy Butler	IB	Ian Boyd
AC	Anne Campbell	JR	John Ralph
AM	Anne Marston	JS	Jonathon Simons
BSBI	BSBI weekend	JW	Jan Wyers
CP	Colin Pope	MB	Margaret Burnhill
DB	David Biggs	PG	Paul Green
DD	Dave Dana	PS	Paul Stanley
EC	Eric Clements	RL	Robin Lang
FR	Fred Rumsey	SC	Simon Colenutt
GT	Geoff Toone	TT	Tony Tutton

Author: C.R.Pope, 14 High Park Road, Ryde, I.W. PO33 1BP

Night-flowered Catchfly (*Silene noctiflora*) in a bean crop at Thorley. The first confirmed sighting of this scarce arable plant since 1994. *Photo Colin Pope*

The first Island record for the rare violet coral fungus, *Clavaria zollingeri*, at Northwood Cemetery growing with the crimson waxcap, *Hygrocybe punicea*. Both are indicators of old, unimproved grassland. *Photo Colin Pope*

Proc Isle of Wight nat. Hist. Archaeol. Soc 21 (pub 2006) :

FUNGI NEW TO THE ISLE OF WIGHT: 2001-2004

Jackie Hart

There have been no published lists of newly recorded fungi since 2000. In order to rectify this, the lists of fungi presented here, cover the period 2001 to 2004. They comprise a total of 148 taxa which have not previously been recorded on the Island. The first records of a few of the micro-fungi have already appeared in Biggs (2003).

2001

The extremely wet but mild weather conditions during the autumn produced a large number of fungi.

Basidiomycetes

Agaricales

Agaricus campestris var. squamulosus	Bembridge, 6 October DR
Armillaria polymyces	America Wood, 18 December CH
Calocybe leucocephala	The Landslip, 6 October DR
Conocybe mesospora	Steyne Wood, Bembridge, 5 October DR
Cortinarius anthracinus	Whitefield Woods, 13 November DC
Crepidotus applanatus	The Landslip, 6 October DR
Cystolepiota hetieri	The Landslip, 6 October DR
Hebeloma fragilipes	Parkhurst Forest, 6 October DR
Inocybe splendens	Combley Great Wood, 30 September DC
Lactarius circellatus	Whitefield Wood, 13 November DR
Lepiota hymenoderma	Unallocated, 6 October DR
Limacella delicata	Pelham Wood, 6 October DR
Micromphale brassicolens	The Landslip, 6 October DR
Pholiota aurivella	Pelham Wood, 6 October DR
Pluteus cinereofuscus	Unallocated, 6 October DR
Porpyrellus pseudoscaber	Whitefield Woods, 13 November DC
Russula brunneoviolacea	Parkhurst Forest, 3 November DC

Aphyllophorales

Clavicorona taxophila	Walters Copse, 21 October DC
Clavulinopsis umbrinella	Briddlesford Copse, 20 October DC
Oxyporus populinus	America Wood, 11 November CH

Ascomycetes

Daldinia vernicosa	Parkhurst Forest, 13 October CH
Erysiphe cichoracearum	Newport, 11 August DB
E. depressa on *Arctium*	Shepherds Chine, 2 September DB
E. orontii on *Antirrhinum*	Gurnard, 5 August DB
Hypocrea citrina	The Landslip, 6 October DR
Microsphaera sparsa on *Viburnum*	Parkhurst Forest, 8 September DR
Peziza tectoria	Bembridge, 7 January DC
Pseudopeziza trifolii	Gurnard, 29 August DB
Seimatosporium lichenicola	Briddlesford Copse, 13 October DB
Sphaerotheca dipsacacearum on *Dipsacus*	Nr. Nunneys Wood, 1 September DB
S. fugax on *Geranium molle*	Bexley Point, 9 December DB

Deuteromycotina

Hyphomycetes

Alternaria sonchi on *Sonchus*	Yarmouth, 22 October DB
Cladosporium herbarum on *Iris*	High Hat, 23 December DB

Oomycota

Peronospora niessleana on *Alliaria*	Osborne, 1 December DB

2002

The year was one of the warmest years on record with August and September seeing below average rainfall of 70% and 81%. This resulted in very dry weather conditions during the autumn with much fewer fungi found.

Basidiomycetes

Agaricales

Coprinus jonesii	America Wood, 4 October CH
Coprinus silvaticus	Briddlesford Cospe, 19 October DC
Cortinarius sodagnitus	Briddlesford Copse, 19 October DC
Crepidotus epibryus	Walters Copse, 17 November DC
Entoloma hebes	Fattingpark Copse, 31 October DR
Fayodia gracilipes	Whitefield Woods, 13 October DC
Hebeloma truncatum	Backet's Copse, 5 October DR
Inocybe acuta	America Wood, 4 October DR
Inocybe umbrina	America Wood, 4 October DR
Omphalina postii	Godshill Woods, 24 November DC
Omphalina rosella	Firestone Copse, 29 September DC
Panaeolus fimicola	Godshill Woods, 24 November DC
Pluteus depauperatus	Walters Copse, 17 November DC
Russula olivacea	Briddlesford Copse, 19 October DC

Aphyllophorales

Hyphodontia barba-jovis	Combley Great Wood, 6 October DR
Leptotrimitus semipileatus	Combley Great Wood, 6 October DR
Perenniporia fraxinea	Afton Marsh, 5 October DR
Postia subcaesius	Saltern Wood, 5 October DR
Tomentella italica	Combley Great Wood, 6 October DR

Tremellales

Tremella globospora	Briddlesford Copse, 19 October DC

Uredinales (Rusts)

Gymnosporanguium sabinae	Ventnor Bot. Gdns, 16 October DB/TP
Puccinia veronicae on *Veronica*	America Wood, 4 October DR
Pucciniastrum agrimoniae	Combley Great Wood, 6 October DR
Uromyces chenopodii on *Suaeda*	Thorness Bay, 5 October DB/TP

Ascomycetes

Anthracobia macrocystis	Walters Copse, 17 November CH
Botrytis allii on *Allium*	Tolt Copse, 12 May JC/TP **(H)**
Erysiphe buhrii	Yafford, 11 August DB

E. cynoglossi	Marvel Farm, 27 July DB
E. howeana on *Oenothera*	Ventnor Botanic Gdns, 16 October DB
E. urticae on *Urtica*	Marvel Farm, 27 July DB
Hypoxylon rubiginosum	Golden Hill Fort, 5 October DR
Microsphaera berberidis on *Berberis*	Appley Park, 19 October DB
M. lonicerae on *Lonicera*	Gurnard, 7 May DB/TP
M. syringae on *Ligustrum*	Kings Quay, 28 September DB
Mycosphaerella ulmi on *Ulmus*	Kings Quay, 28 September DB
Phoma hedericola on *Hedera*	Binstead, 6 March DB **(H)**
Ramularia calcea on *Glechoma*	Osborne, 27 April DB **(H)**
R. purpurascens on *Petasites*	Monks Bay, 3 March DB **(H)**
Septoria cornicola on *Cornus*	Shide Chalk Pit, 20 June DB
S. exotica on *Hebe*	Binstead, 6 March DB
S. rubi on *Rubus*	Briddlesford Copse, 19 May DB

Deuteromycotina

Coelomycetes

Ascochyta viburni	Briddlesford Copse, 22 July
Aschochyta vulgaris	Briddlesford Copse, 29 April
Coniothyrium fuckeli on *Mahonia*	Osborne, 16 March DB

Hyphomycetes

Fusarium heterosporum	Thorness Bay, 8 October DB

2003

Very dry weather conditions during the late summer and autumn resulted in very few fungi being found.

Basidiomycetes

Agaricales

Coprinus leiocephalus	Combley Great Wood, 5 October DR
Cortinarius livido-ochraceus	Borthwood Copse, 7 December DC
Galerina stylifera	Walters Copse, 30 November DC
Hebeloma pusillum	Borthwood Copse, 3 October DR
Hebeloma strophosum	Borthwood Copse, 3 October DR
Mycena capillaripes	Combley Great Wood, 5 October DC
Stropharia aurantiaca	Osborne House Grounds, 4 October DR

Aphyllophorales

Vuilleminia comedens	Borthwood Copse, 3 October DR

Tremellales

Calocera glossoides	Borthwood Copse, 3 October DR

Uredinales (Rusts)

Kuehneola uredinis on *Rubus*	Locks Copse, 8 May DB
Puccinia antirrhini on *Antirrhinum*	Osborne House Grounds, 4 October DR
Puccinia pelargonii on *Pelargonium*	Gurnard, 2 June DB
Puccinia variabilis on *Holcus*	Duxmore, 8 June DB/JC
Pucciniastrum circaeae on *Circaea*	Fort Victoria, 21 September DB

Ustilaginales (Smuts)

Ustilago striiformis	Newport, 23 August DB

Ascomycetes

Apiognomonia veneta on *Platanus*	Northwood Park, 25 September DB
Ascochyta chenopodii on *Chenopodium*	Gurnard, 23 May DB
Erysiphe artemisiae on *Artemisia*	Wroxall, 24 August DB
E. betae on *Beta*	Puckpool Park, 8 October DB
E. convolvulus on *Calystegia*	Idlecombe Down, 5 September DB
E. cruciferarum on *Brassica*	Atherfield, 2 August DB
E. valerianae on *Centranthus*	Shalfleet Churchyard, 4 November DB
Mycosphaerella ligustri on *Ligustrum*	Golden Hill, 25 October DB
Phyllosticta camelliae	Osborne, 8 March DB
Ramularia scrophulariae on *Scrophularia*	Osborne, 8 November DB **(H)**
Septoria unedonis	Osborne House Grounds, 8 March DR
Sphaerotheca aphanis	Blackpan Common, 5 July DB
S. euphorbiae on *Euphorbia*	Gurnard, 23 May DB
Taphrina caerulescens on *Quercus*	Bouldnor Forest, 20 August JC
Uncinula prunastri on *Prunus spinosa*	Wellow, 13 October DB

Deuteromycotina

Coelomycetes

Plasmopara pygmaea on *Anemone*	New Copse, Wootton, 18 May DB

2004

After two very dry autumns the weather conditions in 2004 were more favourable for an excellent show of fungi. With global warming, the autumn fungus season starts later so the annual fungus foray has been rearranged for the third weekend in October.

Basidiomycetes

Agaricales

Clitocybe obsolete	Firestone Copse, 3 October CH
Cortinarius bolaris	Parkhurst Forest, 16 October DR
Inocybe adaequata	Fattingpark Copse, 16 October DR
Leccinum holopus	Parkhurst Forest, 16 October DR
Tricholoma columbetta	Fattingpark Copse, 31 October DC
Tricholoma saponaceum var. squamosum	Firestone Copse, 15 October DR

Aphyllophorales

Clavaria zollingeri	Northwood Cemetery, 21 November CP
Clavulinopsis asterospora	Combley Great Wood, 17 October DR
Daedaleopsis confragosa var. tricolor	Fattingpark Copse, 31 October CH

Poriales

Coriolellus albidus	Osborne, 1 January DB
Trametes hirsute	Mottistone Common, 14 November CH
Tyromyces sericeo-mollis	Parkhurst Forest, 16 October DR

Stereales

Stereum ochraceoflavum	Parkhurst Forest, 15 December DB

Tremellales

Tremella foliacea	Parkhurst Forest, 16 October DR

Ascomycetes

Cymadothea trifolii on *Trifolium*	Newtown, 6 December DB
Lamprospora polytrichi	Calbourne Mill Grounds, 27 October
Microsphaera ornata var. europaea on *Betula*	Parkhurst Forest, 9 October DB
M. symphoricarpi on *Symphoricarpos*	Yarmouth, 13 January DB
Morchella elata	Rowridge, 21 April DB
Nectria peziza	Firestone Copse, 8 February DB
Oidium ericinum on *Rhododendron*	Osborne, 10 January DB **(H)**
Peziza varia	Firestone Copse, 3 October CH
Ramularia lactea on *Viola*	Yarbridge, 1 April DB **(H)**
R. parietariae on *Parietaria*	Alum Bay, 15 October DB **(H)**
Sarcosphaera coronaria	St Boniface Down, April CP
Sawadaea tulasnei	Ventnor Botanic Gardens, 19 September DB
Scutellinia umbrarum	Golden Hill, 9 November CH
Sphaerotheca plantaginis on *Plantago*	Atherfield, 24 November DB
Taphrina amentorum on *Alnus*	Whitwell, 28 October DB/BS
Trichoglossum hirsutum	Northwood Cemetery, 21 November CP
T. hirsutum var.capitatum	Compton Farm, 3 December CH
Uncinula clandestine on *Ulmus*	Parkhurst Forest, 16 October DR
U. flexuosa	Osborne, 18 September DB
Uromyces geranii on *Geranium*	Whitwell, 28 October DB
U. pisi-sativi	Castlehaven, 20 October DB
U. salicorniae on *Salicornia*	St Helens Mill Pond, 28 September DB

Deuteromycotina

Pseudocercospora myrticola on *Myrtus*	Osborne, 7 February DB
Stagonospora atriplicis on *Atriplex*	Hurst Stake, 21 August DB

Recorders

CH	Chris Holland
DB	David Biggs
DC	David Carr
DR	Derek Reid
CP	Colin Pope
JC	Jim Cheverton
TP	Tom Preece
(H)	Herbarium material retained

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Additional Records of Plant Galls From The Isle of Wight

Dr. D.T. Biggs

Since the publication of the last list of newly-found gall- inducing organisms (Biggs 2004) ten new species have been recorded from the Island.

Fungi

Taphrina amentorum (Sadeb.) Rostrup on Alder, *Alnus glutinosa*

This Ascomycete fungus related to those which cause peach leaf curl, and 'pocket plums' has recently expanded its range in Britain. The galls protrude like tongues from the female catkins, originating from ovarian tissue and the underlying bracts. Appearing first in early July they are initially green and rapidly turn yellow then red or maroon when they contrast sharply with the still green catkins. The projecting galls vary from a few millimetres in length up to 55mm. Many are longitudinally ridged, twisted, or curled at the free end. Young galls are soft and pliable but by winter when they have become a dark brownish-black they are hard and brittle. Having been looking for these galls since their recent expansion in range began in 1999, Bill Shepard and I were delighted to find one only of several alders at Stockbridge, Whitwell SZ516779 bearing dozens of the galls 28.10.04.

Acari

Aceria laticinctus (Nalepa) on Yellow Loosestrife, *Lysimachia vulgaris.*

The mite which induces this gall was included in Bagnall and Harrison's list of 1928 and John Robbins of the British Plant Gall Society informs me that there appear to have been no subsequent finds. Colin Pope found an affected plant at Longbridge Marsh, Newchurch SZ562861 on 25.7.04. The mites gall the leaves and flowers. The leaves towards the shoot tip are thickened, twisted, purplish in colour and have their edges rolled upwards. They are also covered with white hairs. Whereas some of the flowers were quite unaffected, others exhibited phyllanthy or virescence, where the internal parts of the flower are converted into small green leaves. The galled flowers were also a purplish colour and covered with hairs. Microscopical examination of these hairs showed that they were variable in width giving a strange beaded appearance to each hair. Most were white but some were a cinnamon brown.

Phyllocoptes mali (Nalepa) on Apple, *Malus domestica.*

In the early literature this mite on Apple was not differentiated from *Eriophyes pyri* which causes very similar galls on Pear, *Pyrus communis*. The Apple gall seems to have begun to spread widely in Europe in the last fifty years. Maureen Whittaker found the first Island examples of this gall on a tree in a garden in Seaview SZ6291 on 11.6.04. The galls are very obvious pustules on the leaf. They are round or oval, up to 5mm. x 3mm., in the substance of the leaf and projecting equally both above and below the leaf blade. They are particularly associated with the edge of the leaf and the secondary veins. The opening is elliptical, usually on the lower surface and surrounded by a very dense growth of long carmine hairs. The pustules themselves are at first light green, then red at maturity and turn brown later. On the leaves Maureen Whittaker sent me the galls were very numerous. It is surprising that this gall has not been recorded before.

Unnamed Gall Mite Buhr No. 56 on Sycamore, *Acer pseudoplatanus*.

One characteristic form of mite gall is an erineum which is a felt-like patch of abnormal hairs. The common and widespread erineum on Sycamore leaves is that caused by *Aceria pseudoplatani*. Herbert Buhr in his classic text of 1964 described all then known European galls giving them each an individual

number even if identification to species of the causer was not possible. Unnamed mite gall No. 56 is another form of erineum which differs significantly from that of A. pseudoplatani in various ways and so far the only known site for this gall on the Island is Toll Bar Plantation, Hulverstone SZ399837 where several galled leaves were found by Jim Cheverton, Bill Shepard and myself 18.8.04. In this gall, the erinea are on the underside, as are those of *A. pseudoplatani* but are much smaller in area, more or less confined to the basal edges of the main veins and the angles between the main veins and the secondary veins. Microscopy also reveals differences in the structure of the hairs. Whereas those of *A. pseudoplatani* are long, thin and cylindrical, those of Buhr No. 56 are extremely short, broad, flattened and expanded at the tips. The erinea themselves were a deep chestnut brown when found. The erinea of *A.pseudoplatani* are indicated by pale yellowish convexities on the overlying upper surface while the presence of Buhr No. 56 is not suggested by any upper surface indication

Diptera

Cecidomyiidae

Asphondylia ulicis Trail, 1873 on Gorse, *Ulex europaeus*.

Brian Gale, a Mainland cecidologist pointed out this gall to me at the annual autumn gall meeting held in Parkhurst Forest on 9.10.04. At SZ480902 he found several flower buds which were slightly enlarged and hairy. Sectioning a bud at home later revealed a large cavity lined with a fungal mycelium and containing a pale orange-yellow larva. This is an example of an 'Ambrosia gall' in which the fungus and the larva live symbiotically. The larva feeds on the mycelium and the gall protects the fungus. The adult gall midges also ensure the propagation of the fungus because the fungal spores are introduced into the host plant together with the egg at oviposition. This fly is reported to be more common in the north of Britain. *Blastomyia origani* (Tavares, 1902) on Marjoram, *Origanum vulgare* The mite gall on Marjoram caused by Aceria origami is not uncommon on our chalk hills so when Anne Marston brought me a plant which she had found on Idlecombe Down SZ458864 on 17.7.04 and which bore five galls I was expecting to find mites inside. Both the mite and this gall-midge cause very similar galls - thickened tufts of leaves bunched together at the apex of the shoots into firm, oval masses 15 x 10mm. and covered with long white hairs. On sectioning the galls I was surprised to find in the central cavity red gall-midge larvae instead of mites. It may well be that this gall has been overlooked in the past because of its similarity to the mite gall. The fly is confined in the U.K. to Southern England.

Macrolabis lonicerae Rubsaamen, 1912 on Honeysuckle, *Lonicera periclymenum*.

The spring gall meeting in 2004 was held on Brading Down on May 16th. Anne Marston found this new gall at SZ6086. Four young terminal leaves showed yellowish and slightly thickened upwardly rolled edges enclosing cream-coloured larvae. This gall has been rarely recorded in Britain, probably because it is usually overlooked. The leaf-edge rolls remain soft and are easily unrolled, extend about 10mm. along the leaf edge and are about 3mm. wide. The roll does not contain abnormal hairs. There are two generations of this midge each year and it is found in central Europe as well as in Great Britain

Massalongia betulifolia Harris, 1974 on Silver Birch, *Betula pendula*.

I found six vacated galls of this species on one leaf of a sapling at Osborne SZ5295 on 29.5.04. Each gall is a shallow blister within the substance of the leaf blade or on a side vein, protruding slightly from the under surface of the leaf and yellowish in colour with a similar yellow discolouration visible from above. Each blister is circular or oval and up to 3mm. x 5mm. in size. The exit holes were on the underside. It is reported to be widespread in the U.K. and may be confined to Great Britain. Inhabited galls reputedly are difficult to find but the single larva is described as being whitish to bright yellow in colour.

Rabdophaga nervorum (Kieffer 1895) on Goat Willow, *Salix caprea*
The gall meeting in Parkhurst Forest 9.10.04 resulted in another new find, Anne Marston discovering one example of this gall at SZ480902. The gall is a spindle-shaped swelling on a main side-vein on the underside of the leaf, 3.5mm. long and 1.5mm. wide. Inside was a single larval chamber containing one pale yellowish larva. The wall of the gall was smooth and hard. The literature describes the gall as also being found on the midrib, and present from June to late autumn. I cannot discover its range in the U.K

Diptera
Chloropidae
Lipara rufitarsis Loew, 1858 on Common Reed, *Phragmites australis.*
This fly induces formation of a cigar-shaped gall in the stem, much less obvious than the common gall of *Lipara lucens* In that gall the stem is thickened up to 2.5 times the diameter of the normal shoot. In *L. rufitarsis* the gall is only thickened 1.5 - 1.8 times the diameter. There is a central chamber which has a papery wall compared to the lignified wall of *L. lucens* I found several galls in a reed bed at Alverstone SZ547859 on 25.5.04. I dissected two of the galls, which had been formed in the previous season. One had been vacated and the other still contained a puparium, from which later hatched only hymenoptenan parasites. This is a fly of the South of England and S. Wales.

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Leaf Mining Organisms Not Previously Recorded On The Isle of Wight

Dr. D.T. Biggs

Since the publication of my last list of newly found leaf miners (Biggs, 2004) five new species for the Island have been found, three flies and two moths.

Diptera

Agromyzidae

*Agromyza filipendulae*_ Spencer, 1976 on Wild Strawberry, *Fragaria vesca.*

A visit to Northwood Cemetery SZ4994 on 29.11.04 resulted in my finding several mines caused by this fly which more usually mines Meadowsweet, *Filipendula ulmaria*. The mines were found on the upper surface of the leaf, were long narrow straight yet branched corridors, towards the leaf tip, pale yellowish-green in colour and flecked with purplish-red. They were very superficial and faint with inconspicuous frass which was produced in grains initially and in strings later. The exit holes were on the upper surface and pupation is external. The fly mines from June to September in two generations and is reported to be fairly common in the south of England and in the Midlands.

Phytomyza heracleana Hering, 1937 on Hogweed, *Heracleum sphondylium*.

The larvae of several flies mine Hogweed and the identity of the causer cannot be determined from the characteristics of the mine alone for some of these species. However the mine of this species is quite unique and unmistakeable. I found four mines on one leaf at Burnt Wood, Porchfield SZ4492 on 14.7.04. Each mine appeared as a circular or oval yellow patch on the upper leaf surface, delimited by two veins, and somewhat mottled brown. The impression given in the field was of localised areas of chlorosis and not until I used a microscope on the leaves did I realise that the yellow patches were in fact full-depth blotch mines containing very scattered frass in grains, and that the blotches expanded from an initial shallow inconspicuous lower surface corridor with very thin delicate strings of frass. I found one buff-coloured larva and three lower surface exit holes. Pupation is external. The fly is described as being locally common in England.

Anthomyiidae

Pegomya setaria (Meigen, 1826) on Russian Vine, *Fallopia baldschuanica*

A large vigorous bush of Russian Vine in Castlehaven Lane, Niton Undercliff SZ5075 attracted the attention of Jim Cheverton, Bill Shepard and myself on 20.10.04 because of numerous very conspicuous white transparent upper-surface blotches on the leaves. The blotches were found to be preceded by a fairly long corridor. Some of the mines contained deep yellow larvae which pupated a few days after collection. The deep purplish-brown pupae had still not hatched by mid-January 2005.

This fly is recorded as mining *Polygonum* but mainly *Fallopia* between June and October, in two generations, and is reported from throughout England and Scotland but is only local in distribution.

Lepidoptera

Gracillariidae

Cameraria ohridella Deschka and Dimic, 1986 on Horse Chestnut. *Aesculus hippocastanum*.

This moth was discovered in Macedonia in 1985 and described as a species new to science in 1986. It then underwent a rapid expansion in range north-westwards across Europe, reaching Austria by 1989, Germany by 1993 and the channel coast of Belgium and the Netherlands by 1999. The first English record was from a private garden in Wimbledon in July 2002. I found it in Hyde Park in September 2003 and here on the Island first at Pelham Woods, St Lawrence SZ541768 on 15.9.04. Since then I have found mines with larvae elsewhere in The Undercliff 19.9.04, at Ryde 23.9.04, in the Arboretum

at Fairlee 27.9.04, Castle Hill, Carisbrooke 19.10.04, Pier Road, Seaview 24.10.04 and at Quarr Abbey 28.10.04. I know of first records from Surrey, Kent and Oxfordshire in 2003, and from Hampshire in 2004. My original record was of one mine on one leaf. A return visit to Pelham Woods a few days later revealed several leaves on the one affected tree to have up to six mines per leaflet. Each mine is an upper surface, elongated oval blotch, buffish-yellow in colour and mainly confined by two adjacent parallel veins, and up to 40mm. x 15mm. The centre of the blotch is dark from the larval frass which is often deposited in arcs. The larva does not produce silk. In continental Europe this moth has altered the appearance of towns and country roads. There can be up to five generations of the mining larva in any one year. Within one to two years of first infection, after the second generation the trees may be completely infected by the summer, with every leaflet affected, gross loss of photosynthetic activity and early loss of foliage, long before autumn. Conker size and number is reduced and the trees weakened and liable to infection by fungal disease such as *Phytophthora*. This moth may have as much effect on our landscape as did the beetle which carried the fungus of Dutch Elm disease.

Phyllonorycter platani (Staudinger, 1870) on London Plane, *Platanus x hispanica*
Known throughout continental Europe and Asia, this moth was not recorded in England until October 1990 when its mines were first recorded in the grounds of Imperial College in S. Kensington. From here it spread into East Anglia and southwestwards, arriving in Surrey and Berkshire in 1991 and in Hampshire in 1998. I have been actively searching for this mine for the last five years and I know that it was not present until 2004. The magnificent specimen tree in what used to be the grounds of Fairlee House at SZ505903 hosted many mines when I re-examined it 27.9.04. I have not found this mine anywhere else on the Island as yet. The mines are typical Gracillariid mines in that they contain silk spun by the larva which eventually contracts the surface of the mine into longitudinal creases producing an inflated tentiform blotch, usually on the lower surface of the leaf. The larva initially feeds in a very inconspicuous upper surface corridor parallel to the veins and which has several small side galleries. This corridor is then expanded into the final blotch which is mottled brown and green above and a translucent yellow below with fine brown stretch marks caused by contraction of the silk. The blotches are up to 6cm. long and 1.25cm. wide. Some of the mines were still tenanted by larvae and some had been vacated. The pupa sometimes overwinters in the fallen leaves on the ground. In Europe the larva is bivoltine, mining in June and July, and again in August to November. Again, in Europe a single leaf can host up to 60 mines and infestation can cause considerable leaf loss with subsequent physiological damage. My identification of the larvae and mines of this moth was confirmed by Dr. J.R. Langmaid.

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ISLE OF WIGHT MARINE BIOLOGICAL REPORT FOR 2003 AND 2004

Roger J.H. Herbert

The following report includes records of algae, invertebrates and fish obtained from inshore waters around the Isle of Wight during 2003 & 2004. Details of marine mammal records are found elsewhere in *Proceedings*.

Report for 2003

Algae

The peacocks tail seaweed *Padina pavonica* was exceptionally luxuriant just south of the lifeboat station at Bembridge in June and July. This perennial appears to be tolerant to the shifting sands of the locality and its annual success is likely to be dependent on the depth of sand prevailing during the summer months. The brown alga *Cystoseira baccata*, not recorded for some years, was found in moderate quantities at Hanover Point in flowing channels near low water springs. A specimen has been retained by the British Museum (NH).

Invertebrates & Fish

Of almost equal interest to the sightings of new or unusual species is the unseasonable appearance and abundance of familiar species. A large specimen of the jellyfish *Rhizostoma octopus* was found washed up on the beach at East Cowes at the end of January. This species is normally found in midsummer and earliest strandings previously recorded have been in March and April.

A single valve of the bivalve mollusc *Arctica islandica* was found at Yaverland by Mr M.Munt. Although generally common off the British coast the only record we have from Island shores since 1980 is from near Seaview (Light, 1990).

There have been large numbers of the razor shell *Solen marginatus* washed up on Solent shores and in Sandown Bay. The recent recovery of this species has been remarkable. It has taken 35-40 years to regain abundances similar to those prior to the severe winter 1962-3, when populations were killed. Local fishermen have now applied for appropriate licenses to collect razorfish for the seafood market and have had specimens tested for human consumption.

In early April a large specimen of the spiny lobster (or crawfish) *Palinurus vulgaris* was caught in a lobster pot 1.5 miles off Brook at 10m depth, and taken to the marine aquarium at Fort Victoria. Apparently another specimen was caught during 2002 but escaped from a holding pot. This is a very rare species from Island shores: according to Frank Morey (1909) specimens were *very occasionally* taken in Sandown Bay. To my knowledge, there have been no subsequent records from the Island's coast.

The Medina Valley Centre, and other partner organisations, commenced a project to gain more information on the biology and local distribution of the mantis shrimp *Rissoides desmaresti.* The species is regarded as rare in UK waters, being found in fewer than eight 10 x 10 km grid squares (0.5%) within 3 miles of the shore (MarLin 2004). The project has involved some dredging and trawling of the seabed in previously known localities between Cowes and Ryde and a recording scheme for oyster fishermen during the winter season between November 2003 and March 2004. Up until 18th December 2003, 32 individuals were caught by fishermen between Wootton and Ryde with others found in Stanswood Bay at the entrance to Southampton Water and off Freshwater Bay, a new locality. Yet no mantis shrimps were caught during four day-long expeditions from a single boat towing two oyster dredges between April and September. However notable observations of 'bycatch' included the following:

May 1st

Between Norris and Wootton Creek just off the eel grass beds:

Ophiothrix fragilis.

This brittlestar caught off Kings Quay is rarely recorded from the Solent.

Ebalia tumefacta
This small crab has not previously been recorded off the Islands coast, although a specimen has been obtained from Southampton Water (J. Mallinson *pers com*).

Sepiola atlantica
The Little Cuttlefish. A single specimen was caught off Kings Quay, together with common cuttlefish *Sepia officinalis.*

9th September
Off the Shrape, just outside East Cowes breakwater in 3m of water at LWS. Several individuals of each of the following species:
Pollack, *Pollachius pollachius*. Large number of juveniles.
Fifteen spined stickleback, *Spinachia spinachia*
Broad-snouted pipefish, *Syngnathus typhle*
Greater pipefish, *Syngnathus acus*
Worm pipefish, *Nerophis lumbriciformis*
Corkwing wrasse, Symphodes (*Crenilabrus*) *melops*

Off Kings Quay, just outside of the beds of eel grass *Zostera marina*:
Plaice, *Pleuronectes platessa*
Red Mullet, *Mullus surmuletus* (a single juvenile)
Long-spined sea scorpion, *Taurulus bubalis*
Pouting, *Trisopterus luscus*

The By-the-wind-sailor *Velella velella* was seen in high numbers during the early summer months, unusually for the second consecutive year. On 21st July, a number of interesting observations were made during a brief dredging survey of the Medina Estuary carried out as part of a *Marine Champions* day, organised by the Wildlife Trusts partnership SE Marine Programme. A large number of the saccoglossan sea slug *Haminoea navicula,* of mixed sizes*,* were found in hauls from the west side of the Folly Lake just south of the pile moorings. This species is nationally uncommon and on the Isle of Wight there is only a single published record of specimens found at Newtown in 1987 (Herbert,1989). A single live specimen of the fanworm *Sabella pavonica* was found in a haul between the Folly and Kingston power station; this species has been found in surprisingly few locations around the island. A Sole (*Solea solea*) was also caught here in the dredge. A plankton sample taken from the same location yielded large numbers of zoea larvae of porcelain crabs and shore crab *Carcinus maenas*. A single specimen of the asexual larvae of the polychaete genus *Atylus* was observed with eggs. A juvenile Starry Smoothhound (*Mustelus asterias*) and a Gilthead Bream (*Sparus aurata*) were also caught in the estuary during the year.

Undoubtedly the most extraordinary observation of 2003 was that of a long-snouted seahorse *Hippocampus guttulatus* found washed up on the beach at Bembridge Point on October 5th by Mrs J.Janes. Remarkably, it was still alive and revived further at Fort Victoria marine aquarium. The specimen was a young female 6cm in length. This is the first authenticated record from the Island's shores. Percy Wadham (in Morey, 1909) refers to the seahorse as being rare off the Hampshire coast, yet not found off the Island's coast. Subsequent to an article and photograph of the seahorse published in the *Isle of Wight County Press* (31st October 2003) Mr. K. Clapcott sent me details of an observation of *Hippocampus* sp. on 28th July 1990 while diving in 4-5m near an eel grass bed off the old lifeboat station at Totland. There have also been 'rumours' of their presence off the north-east coast between East Cowes and Wootton Creek. Enquiries at the National Marine Aquarium at Plymouth and Seahorse

Trust yielded a record of a short-snouted seahorse *Hippocampus hippocampus* caught in shallow water over a muddy substrate between Cowes and Southampton in November 2002. The Bembridge specimen was returned alive to an eel grass bed in the vicinity, which the species is known to favour. It is probable that a small population has existed at Bembridge for some time, although it is possible that the species may be increasing its range as a result of climate change. In the past decade there have been several records of both species inshore off the Dorset coast between Weymouth and Poole Bay.

IOW NFSA new weight records for 2003

Shore Caught:

Species	Date	Location	Weight
Sole (*Solea solea*)	13/9/03	Yarmouth Pier	3 lbs 14oz
Undulate Ray (*Raja undulata*)	3/10/03	Chale Beach	16lbs 13oz

Boat Caught:

Species	Date	Location	Weight
Mackerel (*Scomber scombrus*)	12/11/03	Off Needles	3lbs 13oz

In September 2002, a trawl survey of the Solent undertaken by CEFAS (Centre for Environment, Fisheries and Aquaculture Science) yielded a large number of Baillon's Wrasse (*Symphodus bailloni*). This poorly known species, very similar to the familiar Corkwing Wrasse (*Symphodes* (*Crenilabrus*) *melops*), is thought to reach its northern limits in the English Channel and has not previously been recorded off the south coast of England (Dunn & Brown, 2003). Off the Isle of Wight, both juvenile and larger fish (>10cm length) were caught between Wootton Creek and Ryde. A total of 89 individuals were caught during the survey and, remarkably, this was the most common species of wrasse caught. The observations are symptomatic of the warmer seas and associated shift in fish communities reported elsewhere (Beare *et al* 2003; Hawkins *et al* 2003).

Report for 2004

Algae

In September, there was an exceptional abundance of the green alga *Bryopsis plumosa* in rock pools at Bembridge, just south of the lifeboat station. This very attractive species has been recorded from the area (Collins et al, 1990) but not observed in such profusion.

Invertebrates

In total, 41 specimens of the mantis shrimp *Rissoides desmaresti* were recorded in local waters over the winter 2003-2004. Most of these were dredged up from muddy-gravel substrate by oyster fishermen between Christchurch Ledge and the eastern Solent although a single individual was also caught off Freshwater Bay. The largest specimen was 82mm in length and smallest 41mm.Only 26% of the animals caught were males. This ratio of males to females is consistent with work on the spearer mantis shrimp *Squilla empusa* from the Gulf of Mexico (Wortham-Neal, 2002).

A survey of the benthic fauna on the sea bed off Sturbridge, between Ryde and Portsmouth, on 7th May did not yield any mantis shrimps. However notable records were a single slit limpet *Emarginula fissura* attached to a small cobble and two specimens of the pistol shrimp *Alpheus macrocheles* that were living in holes within a small boulder. Both species are first known records from the Solent. Researchers in the physics department at Southampton University have made sound

recordings of the pistol shrimp. As a southern species, this again could be a relatively recent colonist of the region.

Fish

According to local anglers, this summer was an exceptional year for red mullet *Mullus surmuletus* particularly in the Solent. Two specimens of the beautiful butterfly blenny *Blennius ocellaris* were caught while undertaking survey work in the vicinity of Sturbridge shoal between Portsmouth and Ryde. In May, a specimen was found in an old bottle and another from the same location caught in September was seen in a hole within a small boulder. These are the first known records of this species from the Solent.

Further to the first Island record of the seahorse *Hippocampus guttulatus* (see 2003 Report), a dead specimen of the short-snouted seahorse *Hippocampus hippocampus* was found washed up on the beach at Yaverland on 30th October. There had been south-easterly gales in the previous few days and there was a large amount of seaweed and flotsam debris, including bottles and wood with goose barnacles attached. The specimen had a piece of eel grass *Zostera marina* wrapped around its body suggesting that there might be a local colony, although the nearest known eel grass beds are off Bembridge. The animal was bright red in colour and a photograph was sent to the Seahorse Trust. A reply from the Trust director, Neil Garrick-Maidment, stated that it was a female 2-3 years old and in good condition, albeit dead. Speculation that there might be a local colony of seahorses in Sandown Bay was heightened further following a report from Mr. K.Batchelor who had caught one in August while potting a few hundred metres off the end of Sandown Pier, although the species was not determined. In late October a seahorse, species not determined, was reported within the stomach contents of a Cod caught by an angler off the Nab Tower.

Perhaps the most remarkable fish record of the year was the capture of a giant Eagle Ray, *Myliobatis aquila,* weighing an astonishing 102 lbs caught south east of the Nab Tower. This superceded the previous NFSA national boat-caught record for the species by just over 40lbs! The previous boat-caught Isle of Wight record was 52lbs 8oz for a fish landed at Bembridge in 1972, yet probably caught off the Nab.

IOW NFSA new weight records for 2004

Shore Caught:

Species	**Date**	**Location**	**Weight**
Golden Grey Mullet, *Liza aurata*	19/7/04	Yarmouth Harbour	2lbs 8oz
Ballan Wrasse, *Labrus bergylta*	4/9/04	South Wight	6lbs 3oz

Boat Caught:

Species	**Date**	**Location**	**Weight**
Golden Grey Mullet *Liza aurata*	25/4/04	R.Medina	2lbs 2oz
Eagle Ray, *Myliobatis aquila*	9/8/04	SE of Nab Tower	102lbs *
Trigger Fish, *Balistes carolinensis*	15/8/04	Off Needles	3lbs 8oz

* New National Record

Acknowledgements
Thanks to all those who have submitted records during the year, especially NFSA (IOW) Recorder George Bernowicz and Neil Garrick-Maidment of the Seahorse Trust. The survey of the mantis shrimp is supported by the DEFRA Aggregates Levy Sustainability Fund.

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ODONATA RECORDS FOR 2004

J M Cheverton

With observer effort assessed as similar to that of recent years the total numbers recorded for most species this season were lower than for many years. Of the damselflies only the Common Blue *Enallagma cyathigerum* occurred in an average number while there were large decreases in the numbers of the Beautiful Demoiselle *Calopteryx virgo*, Banded Demoiselle *Calopteryx splendens*, Large Red *Pyrrhosoma nymphula*, Blue-tailed *Ischnura elegans* and Azure *Coenagrion puella.* Of the dragonflies only the Migrant Hawker *Aeshna mixta* and Black-tailed Skimmer *Orthetrum cancellatum* were recorded in expected numbers while the Broad-bodied Chaser *Libellula depressa* and Ruddy Darter *Sympetrum sanguineum* were particularly scarce. The only migrants recorded were a single Red-veined Darter *Sympetrum fonscolombii* and a male Lesser Emperor *Anax parthenope.*

Systematic List

Calopteryx virgo (Beautiful Demoiselle)
The total recorded this year was 61, a much smaller number than that for last year but not much less than the average for the previous five years. All were seen at "Wild Tracts", Shalfleet (SZ4189), the first on 4th May (VG) and the last on 19th August (VG).

Calopteryx splendens (Banded Demoiselle)
The total recorded was 65, a large decrease on the numbers for recent years and the lowest since 1994. The first, three males, were seen at the Yar at Brading (SZ616869) on 18th May (DD) and the last, a female, at Merstone Manor Farm reservoir (SZ515855) on 31st July (DD).

Lestes sponsa (Emerald Damselfly)
Thirty-two were recorded , all at Longlands disused reservoir, Apse (SZ560819), on 25th July (DD).

Platycnemis pennipes (White-legged Damselfly)
None have been reported since 1992.

Pyrrhosoma nymphula (Large Red Damselfly)
An even poorer year than the last with only 125 recorded compared with 205 in 2003, 388 in 2002 and 781 in 2001. The first were seen at the Education Site in Parkhurst Forest (SZ470913) and in a Wroxall garden (SZ5580) on 24th April (DD) and the last in a ditch south of Corve Farm (SZ478800) on 24th July (DD).

Ischnura elegans (Blue-tailed Damselfly)
This was another poor year with only 312 reported. Most observers saw very few and reported concern for the species. The first was seen in a garden at Westhill, Shanklin (SZ576810) on 3rd May (JMC) and the last at Ford Farm reservoir (SZ514796) on 1st September (DD)

Enallagma cyathigerum (Common Blue Damselfly)
This species remains widespread and common with at least 3490 individuals seen. The first was recorded at Berrycroft Farm ponds (SZ514804) on 17th May (DD) and the last at Whitwell SZ5277) on 4th September (DD).

Coenagrion pulchellum (Variable Damselfly)
None reported since 1997.

Coenagrion puella (Azure Damselfly)
The total of 417 individuals reported was the lowest since 1993. The first was seen at Stenbury Manor main pond (SZ524789) on 17th May (DD) and the last near Wellow (SZ3887) on 2nd September (VG).

Erythromma viridulum (Small Red-eyed Damselfly)
This species, which arrived in the Island in 2000, has maintained its foothold and, up until 2002, had increased in number. However, the total of 521 individuals recorded this year was smaller again for the second year running. The first was seen at Godshill Park Farm ponds (SZ535806) on 12th July (DD) and the last at Sandown Canoe Lake (SZ606847) on 31st August (DD).

Erythromma najas (Red-eyed Damselfly)
Two males were seen at Parsonage Peat Pond (SZ5685) on 30th July (DD). This is the second record for the Island, the first having been made in 2001.

Brachytron pratense (Hairy Dragonfly)
A total of six was recorded at Brading Marsh on 2nd June with two males at SZ631876, three sex not recorded at SZ628876 and one male at SZ621874 (DD).

Aeshna juncea (Common Hawker)
None recorded this year.

Aeshna grandis (Brown Hawker)
None recorded this year.

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Aeshna cyanea (Southern Hawker)
Another poor year with only 72 reported, the lowest number since 1996. The first was seen at Walters Copse (SZ4390) on 21st June (AJLB) and the last near Dodnor (SZ5090) on 18th October (DTB)..

Aeshna mixta (Migrant Hawker)
An average year with 160 individuals reported. The first was seen in a garden at Gurnard (SZ476954) on 10th July (DTB) and the last at Seagrove Bay (SZ6391) on 24th October (JMC).

Anax imperator (Emperor Dragonfly)
Fewer than in most years with only 144 recorded. The first was seen at Locks Farm (SZ447907) on 23rd May (BJA) and the last at Whitwell (SZ5277) on 4th September (DD).

Anax parthenope (Lesser Emperor)
A male of this rare migrant species was observed for about 30 minutes at Merstone Manor Farm reservoir (SZ515855) on 31st July (DD).

Cordulegaster boltonii (Golden-ringed Dragonfly)
Following the large number recorded in last year's survey, the 24 noted this year marked a return to more usual totals. The first was seen at Garrets Farm (SZ5187) on 2nd June (JMC), the earliest date since recording started in 1978, and the last at Wydcombe (SZ5087) on 1st September (DD).

Cordulia aenea (Downy Emerald)
None reported this year..

Libellula depressa (Broad-bodied Chaser)
The worst year since 1993 with only 55 individuals reported. The first was seen at "Wild Tracts", Shalfleet, (SZ4189) on 8th May (VG) and the last at Walter's Copse (SZ4390) on 18th July (BJA).

Libellula quadrimaculata (Four-spotted Chaser)
The first, a very mature specimen, was seen flying west along the coast at Thorness Bay (SZ4593) on 23rd May (DD). There were ten more sightings, all at Brading Marsh, eight at SZ631876 on 2nd June (DD) and two at SZ6387 on 21st June (JMC).

Orthetrum coerulescens (Keeled Skimmer)
Three individuals were reported, all on the cliff-top at Whale Chine (SZ467783), one on 5th June (BR) and a male and a female on 7th June (DTB).

Orthetrum cancellatum (Black-tailed Skimmer)
Another good year with 251 individuals reported. The first were seen at Parkhurst Forest (SZ4789) on 20th May (AJLB) and the last at Waytes Court Farm reservoir (SZ431824) on 2nd September (DD).

Sympetrum fonscolombii (Red-veined Darter)
There was one record of this scarce migrant. A male was seen at Atherfield Green Farm reservoir (SZ466797) on 28th June (DD).

Sympetrum striolatum (Common Darter)
This was a poor year for this dragonfly with only 300 individuals reported, the lowest number since 1996. The first was seen at Brading Marsh Reserve (SZ6387) on 21st June (JMC) and the last at Long Lane (SZ529890) on 17th November (DD).

Sympetrum sanguineum (Ruddy Darter)
Another extremely poor year with only 47 individuals reported. The first was seen at Brading Marsh Reserve (SZ6387) on 21st June (JMC) and the last at "Wild Tracts", Shalfleet (SZ4189) on 8th September (VG).

Observers
I thank the following observers who have contributed records, only a small number of which are shown above.

Mr B J Angell (BJA)	Dr D T Biggs (DTB)	Mr A J L Butler (AJLB)
Mrs E Butler (EB)	Mr M Cahill (MC)	Mr D Dana (DD)
Ms P Gaylor (PG)	Ms V Gwynn (VG)	Mr S Knill-Jones (SK-J)
Mr J D Ralph (JDR)	Mr B Ransom (BR)	

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THE HISTORICAL & CURRENT STATUS AND DISTRIBUTION OF RARE "FRITILLARY" BUTTERFLIES ON THE ISLE OF WIGHT.

A.J.L.Butler & A.S.Wright

Introduction

A.S.Wright & A.J.L.Butler were commissioned by the Hampshire and Isle of Wight Wildlife Trust, through the Wight Wildlife Partnership to survey the historical and current status and distribution of the Pearl-bordered fritillary *Boloria euphrosyne,* the Small pearl-bordered fritillary *Boloria selene* and the Duke of Burgundy *Hamearis lucina.* This abridged version of the full report provides an historical overview for each species, including references to information sources and maps indicating the expansion or decline of these species in as much detail as possible. All known post 1980 sites have been re-surveyed together with, where accurate data permits, pre 1980 sites and in particular those sites which are known to have held populations post 1950.

The survey included searches for larvae and larval damage to foodplants in addition to searches for imagines. For all sites surveyed, presence or absence of the relevant species was recorded as well as an indication of the current suitability of the sites for the species under consideration. Existing management regimes on these sites was noted and the likely cause of decline or increase given where feasible, together with suggestions relevant to sustainable management. The report includes an assessment of the local and national status of the three species; the relative importance of Isle of Wight populations in a national context; an assessment of the historical distribution of the three species; relevant distribution maps; photographs of habitats and recommendations for appropriate conservation measures, both generally and with reference to individual sites.

DUKE OF BURGUNDY *Hamearis lucina* (Linnaeus 1758)

UK BAP status	Species of Conservation concern
National status	Medium Priority
Regional status (RAP)	High Priority
Regional decline	Approx. 50% decline over last decade
European status	Near threatened
Protection under WCA 1981	Protected under schedule 5 (sale only)

General description.

The Duke of Burgundy is an oddity in European terms as it is the only representative of the sub family Riodininae, which is more generally found in Central America. Thought to have arrived in Britain in the Early Post Glacial period (Dennis 1977) it was not however recorded until the end of the 17th century, the first recorded specimen being taken by William Vernon in Cambridgeshire . It was originally classified as a fritillary Nymphalidae due to its chequered upper side wing markings but in the mid 20th century this was changed and it is now classified, by some authorities, as a member of the Lycaenidae (blues, hairstreaks and coppers). It's present range is confined to England only and it is not found any further north than N. Yorkshire. The insect is univoltine with the first adults usually on the wing in early May and the last in mid June. The sexes are similar in appearance but the male is slightly smaller than the female and the one major characteristic of the butterfly is the much diminished forelegs of the male, giving it in effect, four instead of six legs. Males tend to be sedentary but females may fly quite considerable distances giving rise to odd sightings of singletons in the most unlikely places. Eggs are laid in small numbers on the underside of the foodplant, usually Cowslip *Primula*

veris but sometimes Primrose *Primula vulgaris*. Hatching in 1 to 3 weeks the larvae feed only at night and if the foodplant becomes slightly unsuitable they will move quite some distance in search of better quality plants. They pupate from mid July to August hidden in dense grasses above ground level and remain there in this state all winter. As a knowledge of the life cycle of the butterfly is essential before deciding on any management techniques it can be seen that this butterfly is probably most vulnerable to physical damage at the crucial stages of larval feeding and especially pupation.

A characterization of the Duke of Burgundy seems to be its ability to survive in very low numbers and on quite small sites. When these sites become unsuitable it is forced to disperse and usually dies out as its required habitat is rarely found nearby. In the 1980's and early 1990's quite a few records came in from small isolated sites across the Island which may indicate that the butterfly was more widespread than previously thought. This flush of records was probably instigated by Mathew Oates and his visits to the Island which in turn prompted other observers to look for the butterfly in suitable sites. It would seem that they recorded the last few locations at the end of their suitability for the butterfly which has now been lost from most of them. The interest came just too late. What follows is a list of known sites where the Duke of Burgundy has been recorded from 1860 to the present day. Some of these have been impossible to verify but are included for interest sake.

Ryde	SZ595925 A.G.More 1860 in Venables I.W. Site not specified but could be Bullen Wood referred to by T.D.Fearnehough in Ent.Rec. Vol 84 1972. Bond (IWERC) 1919 possibly as above but alternatively maybe Whitefield Woods.
Quarr Wood	SZ567924 A.G.More. 1860 in Venables I.W.
Borthwood	SZ570844 H.F.Poole. 1909 in Morey's Guide.
Combley	SZ545885 H.F.Poole. 1909 in Morey's Guide. E.Wilcox 1960's CRP (pers comm.)
Apes Down	SZ452873 1909 Morey's Guide. Probably meant to be Monkham Copse where Duke of Burgundy is still present (2004).
Totland Bay	SZ325870 1909 Morey's Guide. No other information.
Parkhurst Forest	SZ475909 1909 Morey's Guide.
Havenstreet	SZ562905 J.Nobbs 1908. Maybe meant to be Combley.
Blackgang	SZ485765 T.D.Fearnehough in Ent. Rec. Vol 84 1972. The record refers to 1928 and is a very odd location. We have been unable to find out anything more.
Freshwater	SZ343870 1950 IWNHAS records. No other information available but may refer to Tennyson Down.
Cranmore	SZ390900 J.Wright 1950 in T.D.Fearnehough Ent. Rec. Vol 84 1972. J.Lobb 1960 – 1963 precise site not specified. IWNHAS records. I.Fletcher 2003.
Brook	SZ390838 Dr.Blair 1950 IWNHAS records. A.S.Wright 2003.
Tapnell Down – East Afton	SZ360857 - 380856. Mathew Oates 1983.
Carisbrooke	SZ485883 C.W.Pierce 1950 IWNHAS records.
Mountjoy	SZ492878 B.Angell. The previous record of Carisbrooke could well mean Mountjoy as they are virtually adjacent.
Whippingham	SZ512937 J.Lobb 1951 IWNHAS records. Precise site not specified.
Hampstead	SZ399912 T.D.Fearnehough Ent. Rec. Vol. 84 1972
Idlecombe	SZ455855 C.Pelham 1989 IWNHAS Records.
Rowridge	SZ452864 C.Pelham 1989 IWNHAS Records. Same as Monkham Copse/Apes Down.

Chillerton	SZ476831 C.Pelham 1989 and B.Angell 1990's IWNHAS Records.
Tolt	SZ484844 1989-1991 many records. Note this site is the downland adjacent to the copse.
Tennyson Down	SZ330855 S.K-Jones 1990 IWNHAS Records.
Brighstone Chalkpit	SZ423844 B.Ransom 1991 IWNHAS Records.
Shalcombe Chalkpit	SZ395851 B.Angell 1990's.
Newtown	SZ425915 Wardens report 1969. S.Young 2003 IWNHAS Records.
Firestone Copse	SZ555910 E.Wilcox 1960's CRP pers comm. Fox 1918 IWERC.
Eaglehead & Bloodstone Copses	SZ585876 Mathew Oates 1983. CRP pers comm.
Westover Plantation	SZ415854 K.Page 1982 in Chatters 1985.
Ashey Down (North Side)	SZ573876 B.Jolliffe 1983. CRP pers comm.
Rowborough	SZ452850 1990's B.Angell/E.Wilcox IWNHAS Records.
Rowlands Wood Railway Line	SZ565895 Mathew Oates 1983 in Chatters 1985.
Alverstone	SZ576857 D.Britton 1991.
Nansen Hill	SZ579788 S.J.Grove 1986 Butterfly Conservation.

Abbreviations:
IWNHAS Isle of Wight Natural History and Archaeological Society.
CRP Dr. Colin Pope.
Chatters 1985 A report for Duke of Burgundy conservation study Alton Hampshire.
IWERC Isle of Wight Environmental Records Centre.

Site Surveys.
All sites that were considered suitable from past records were visited at the appropriate times of the season by both authors and occasionally accompanied by other observers. The sites were searched as thoroughly as possible for signs of egg laying, larval damage and adult butterflies on the wing. Numbers were noted as was the amount and condition of larval foodplants and an assessment made of the suitability of the site as a whole. Digital photographs were taken were appropriate and field notes taken at the time. Grid references were taken with a hand held GPS. A note was also taken of any other interesting flora and fauna.

Monkham Copse. Managed by Borde Hill Estate.
This is the only site on the Island where the Duke of Burgundy has been seen regularly for at least the last hundred years but in all this time only small numbers seem to have been recorded. Monkham represents a typical habitat illustrating the move by this butterfly over the last fifty years out of coppiced woodland and into scrubby calcareous downland. There is only one general area where the butterfly can now be found but this can be divided into two distinct types. The first, site A is situated in the edge of the copse itself and is approached by a short swiped track to the east of the main footpath. It is an area approximately 70m x 40m of good quality calcareous grassland facing northwest and surrounded by woodland. The wood consists mainly of Hazel *Corylus avellana*, Ash *Fraxinus excelsior*, a few Turkey Oak *Quercus cerris* with Wayfaring-Tree *Virurnum lantana* and Hawthorn *Crataegus monogyna* also present. There is a good number of typical chalk plants including Viper's-bugloss *Echium vulgare*, Devils'-bit scabious *Succisa pratensis* and Cowslips. There are also small clumps of scrub dotted about the site; rabbits are present. Adjacent to site A and separated by a thin area of tall Hazel and Hawthorn scrub and west of the main track is the lower site, B. This is, as stated, a totally different area to site A and consists of a narrow strip of grassland stretching at least 150m

parallel to the track. It has dense patches of Rosebay Willowherb *Chamerion angustifolium* Nettles *Urtica dioica* with Ramsons *Allium ursinum* and Speedwell *Veronica spp* in the shorter grass but has larger and better examples of Cowslips than site A but only in small numbers. It is a damp, sheltered area providing good growing conditions for the vegetation found there. The western boundary is of mature Hazel.

The population of Duke of Burgundy at both sites is only very small and seems to have existed in low numbers for many years. When actual counts of adults have been made they have always been in single figures with a maximum of 6 in 1991. The most seen by the authors was 5 on the 20th May 2004 with 3 on site A and 2 on site B. Their current behaviour is that there is an interaction between the two sites with females making use of the better quality Cowslips found in site B. These plants will stay in optimum condition longer due to the growth of surrounding grasses and herbage providing partial shade, plus the advantage of the damper conditions. The Cowslips in site A dry out and turn yellow much quicker as they are in a more open aspect and on well drained soil. Chatters 1985 noted a similar movement of females between the sites. A number of Duke of Burgundy eggs were found by Robin Curtis on Cowslips in the centre of site B in 2004 and each plant was marked with white plastic tags for future reference. Unfortunately, when visited by the authors on the 22nd June site B had been extensively swiped and the plants either damaged or covered in cut herbage, which we removed. No recent sign of larval damage was observed and another visit on the 16th July again showed no evidence of any larvae surviving. Larval damage to Cowslips was found to one plant in area A on the same date. Information from K.Woolley (estate gamekeeper) is that area B was cleared 15 years ago and has been swiped annually ever since. We also surveyed the whole area surrounding Monkham Copse and found no suitable habitat nearby. The copse itself is quite dense and unworked and thus unsuitable for the butterfly and the last remnant of what could have been used is in the northwest corner and right on the edge. This small area is only about 50sq.m. and sheltered on three sides. Although Cowslips and Primroses were present, the size and position of the site preclude it as potential Duke of Burgundy habitat.

Managing any site for Duke of Burgundy is fraught with difficulty as the requirements are very particular and possibly not fully understood and may not fit in to many conservation regimes currently in existence. Many years of study by Mathew Oates has enabled some of the criteria for managing a successful and sustainable colony to be known. One of the key requirements for larvae to survive is the position and condition of the Cowslip plants where eggs are laid. At any one site this may not be perfect so success is limited but interestingly site B seems to fulfil all the best possible options. That is, plants that possess at least four medium-sized leaves and which are easy to perch on but have their roots and lower stems sheltered by surrounding grasses or low scrub. Also, as these grasses grow on in the summer months they shelter the Cowslips from strong sunlight thus avoiding drying out and yellowing thereby ensuring a constant supply of lush green leaves until the larvae leave the plants in July and pupate in the grasses nearby (Oates 2000).

As Monkham is the only known regular site, great care has to be taken with any scheme in the future to increase the population. There seems to be a case to remove some of the trees adjoining site A further up the main track. We think that if this is contemplated it is important that site A is not compromised in any way and the thin scrub to the south is left so that any work would be carried out in semi isolation. Duke of Burgundy will apparently travel considerable distances and indeed Tony Steele has found the butterfly well up the main track. They will also fly quite easily up and over high vegetation (pers. obs.) so a thin shelter belt would not be an obstacle to reaching the required habitat. Some selective thinning could be carried out in site A but only in a very limited way. The key to the future of the butterfly is site B and it is important that a management regime is put in place here, although the fact that the area is in private hands does present a difficulty. Perhaps one idea might be instead of swiping the site it would be possible to graze part of it with young cattle in the winter

to help increase the number of Cowslips (by poaching). Of course this may compromise the safety of any chrysalids suspended above ground in the taller grassland but if only a part of the grassland was grazed at a time, starting up the main track and away from the known laying site, this would increase the area of suitable habitat considerably. Conversely, the present annual swiping may not be as damaging as it appears, only further intense monitoring will confirm this but it is worth noting that actual butterfly numbers have not increased over the years. This is the only core site on the Island and it is extremely vulnerable, nothing should be done here without a great deal of thought and consultation. We recommend that Mathew Oates should be asked to give his opinion of the site as he is the acknowledged expert on this particular butterfly.

Apes Down.
Although most of the records logged under Apes Down actually refer to Monkham Copse there was one early record which is the summit of Apes Down. The authors consider this a mistake and the record is, like the rest, referring to Monkham Copse. Early records were almost invariably in woodland and not open downland. Nevertheless the site was checked and found totally unsuitable with heavy sheep grazing and no patchy scrub, although there was evidence that Cowslips were present.

Tolt Copse. Bowcombe Estate managed by Strutt and Parker.
Although the copse is no longer suitable for the butterfly the small area of downland to the west of the wood has held Duke of Burgundy in the past. The site is approximately 100m x 50m and represents a real enigma as it seems to still be capable of supporting a reasonable population of the insect yet with no sightings since 1997 the butterfly would appear to be extinct here. Situated at the top of a fairly steep incline and immediately above a wide farm track the site is sheltered on all sides with patchy scrub such as Wayfaring-tree, Hawthorn and Bramble *Rubus spp* which is encroaching into the grassland. Bugle *Ajuga reptans,* Speedwell, Horseshoe vetch *Hippocrepis comosa* as well as Cowslips are present here. The site is not grazed by commercial livestock or managed in any way but there are many rabbits present. It would be expected that the area would have scrubbed over completely by now but this has not happened although the edges do now seem to be encroaching more than in previous years. Records in the 1980's & 1990's show that the butterfly was present in good numbers for such a small site, for instance 18 on the 18th May 1992 (A.Butler) and 15 on the 13th May 1990 (C.Pope), numbers gradually decreased to only a single sighting in 1997 (S.Colenutt). As there have been no records since then, despite intensive searching, it must be assumed that the butterfly is extinct at this site. The reasons for the loss are not easy to quantify; most criteria for a successful population seem to be present, such as aspect, larval foodplant, shelter and no disturbance but there is a heavy rabbit presence and they are known to eat cowslips. It is interesting that there do not appear to be any records from here before 1989 so it is possible that it was a short lived colony of about 10 years or so, but more likely it had been in existence for years and was another example of the butterfly moving out of what had become unsuitable woodland and into adjoining grassland without being recorded. As there is probably no chance of influencing how this site develops and despite an intensive but unsuccessful search for signs of Duke of Burgundy we must conclude that the butterfly has gone forever from Tolt. The surrounding area was also surveyed but nowhere found suitable due to intense cultivation.

Idlecombe & Rowborough M.Poland, Wight Conservation.
In 1989 a colony of Duke of Burgundy was discovered on Idlecombe Down SZ455855 which must have been of quite a considerable size as on the 21st May 1989 C.Pelham recorded at least 11 adults present. Also about the same time (1990) Mathew Oates recorded the butterfly here. With the exception of one small patch of open grassland the whole area is now heavily scrubbed over and totally unsuitable. At around the same time small numbers of the butterfly were seen along a ride in nearby Rowborough Bottom SZ452850 by B.Angell and E.Wilcox. This site is no longer suitable.

Brook, Shalcombe, Wellow & Tapnell Downs National Trust.
The first known record from these downland sites was in 1950 when Dr.Blair noted "several" adults on Brook Down. There were no more seen until 1989 when Mathew Oates found larval damage to Cowslips on Tapnell Down SZ375856. B.Angell also reported finding the butterfly regularly around Shalcombe Chalk Pit in the late 1980's and the most recent record was by A.Wright in 2003 on Brook Down. The whole area is approximately 4km in length and .3km in width and thus due to its size is extremely difficult to survey for such an elusive insect. It is managed by the National Trust partly for Dark Green Fritillary *Argynnis aglaja*, Dartford Warbler *Sylvia undata* and its botanic interest. North of the main track on Brook Down the site is cut biennually at the end of February and south of the track annually in September. Patches of Gorse *Ulex europaeus* and grass are left as a mosaic and cut every four years. The area is covered in Cowslips and there is some shelter provided by adjoining woodland, pits and patches of scrub. As already stated this is a very difficult site to survey and we made a number of visits here to find either adults on the wing or larval damage to Cowslips but failed to find any signs at all. The authors consider that given the nature of the site and the long time scale between records that there is a very high probability that somewhere in the area there is a long established colony. Further searching over a long period of time is the only way to establish this (or a bit of luck!) and it would also seem that the management of the downs suits the butterfly.

Mountjoy Cemetery Isle of Wight Council.
B.Angell has recorded the butterfly here in the past and it is quite likely that the larval record from a Mr.Pierce in 1949 and just identified as "Carisbrooke" could well refer to Mountjoy, as they are virtually adjacent. The cemetery is currently still in use and parts of it are managed with nature conservation in mind but the Duke of Burgundy is now extinct here. An extensive search showed excellent habitat with masses of Cowslips but no butterfly. The authors also looked at the area around Carisbrooke Castle but found it totally unsuitable, consisting mostly of rank grassland and scrub, very few Cowslips were found.

Newbarn. Spence, Newbarn Farm.
This is another odd site and shows yet again how elusive Duke of Burgundy can be. It is currently managed under a Countryside Stewardship Scheme and was probably cut with a swipe about a year ago.

There are dense patches of scrub, some quite tall and with patches of rough grassland in between and the upper slope appears to be slightly acidic with Tormentil *Potentilla erecta* present running down to calcareous grassland supporting Early-purple orchid *Orchis mascula*, Rock- rose *Helianthemum nummularium* and Violets *Viola spp*. The best patch is at the bottom of the slope next to the fence line and is only about 20sq.m. in size. Although no adult butterflies were seen, larval damage was found to a single Cowslip clump on our last visit on 22nd of June. The few records from here have all been in recent years and in typically low numbers, the last adult here was seen in 2002 by Tony Steele. This site has a management plan in place but nevertheless requires close monitoring.

Cranmore. Varied private ownership, Hampshire and Isle of Wight Wildlife Trust.
An interesting area situated in the northwest of the Island consisting of a mix of habitats on primarily clay based soil. There have been many records from this general area in the past including Hampstead and Newtown. There is very little information as to the precise location of historical sites that held Duke of Burgundy in numbers but the principal aspect all sightings have are that the numbers are usually very low. The one exception was a record by J.Wright in 1950 of a "thriving colony" near Cranmore in woodland but no record exists of where this was exactly other than to say that the next

year (1951) it was destroyed in a clear fell scheme, Gully Copse has been put forward as a possible location (Chatters 1985). Over the intervening years odd single sightings have been reported from Cranmore, such as in 2003. Also in 2003 another singleton was seen in Walters Copse SZ434906 by Dr.S.Young and there is an old record in 1969 from the same area in the Newtown Wardens report. These sporadic sightings seem to indicate that a small population still exists somewhere in the general area but the amount of privately owned ground precludes a detailed search so once more it would come down to a chance finding.

Nansen Hill. SZ579788 Isle of Wight Council.
Evidence of Duke of Burgundy was found here in 1986. Thorough searching in subsequent years including 2004 has failed to find the butterfly. Cowslips however are still present but there is a very large rabbit population in this area which may have been the reason for the butterflies demise.

Eaglehead & Bloodstone Copse. Hampshire & Isle of Wight Wildlife Trust.
There have been no sightings of the butterfly here since 1983 when larval damage was found to Cowslips and a search by the authors in 2004 failed to find any suitable habitat so the Duke of Burgundy is probably extinct here.

PEARL-BORDERED FRITILLARY *Boloria euphrosyne* (Linnaeus 1758)

UK BAP status	Priority Species
National status	High Priority
Regional status (RAP)	High Priority
Regional decline	94% of sites lost in last decade
European status	Not threatened, but declining in some countries
Protection under WCA 1981	Protected under Schedule 5 (sale only)

General description.
Another Late Glacial arrival (Dennis 1977) the Pearl-Bordered Fritillary is classified as a member of the Nymphalidae which is a large group that is then subdivided and the butterfly is of the genus Boloria, Moore 1900, which in turn is placed in the subfamily Argynninae, Higgins 1975. First recorded in England by Petiver (1699) it was confused at first with the Small Pearl-bordered and it was not until 1803 that Haworth gave it its present precise name. It is usually the first fritillary to be seen, often on the wing in April. It is a butterfly of woodland clearings caused by coppicing or clear felling and replanting schemes. Once widespread in the British Isles it has now declined severely which is reflected in its status in the Isle of Wight. The male is slightly smaller than the female and generally of a paler colour but this may not be always obvious in the field. The main diagnostic feature is the markings on the rear underside wings, which have two large silver 'pearls' in the centre and a row of seven 'pearls' round the trailing edges plus a small dark spot in the centre. The insect is usually univoltine and over-winters in the larval state and after pupation emerges in late April or early May. Eggs are laid on or near to the larval foodplant which is usually Common Dog-violet *Viola riviniana* and hatch in about two to three weeks. The larvae feed from late June and eventually hibernate in early autumn in dead leaf litter reappearing in late February or early March to carry on feeding. The pupa is suspended in low vegetation and this stage lasts just under three weeks. Sometimes in August a small second generation is occasionally recorded.

To list all the known early historical sites in the Island is pointless as, in keeping with the mainland, the butterfly was extremely common and found in suitable habitat right across the Island; it was even in the Ventnor Undercliff (Martin 1849). By the time of the publication of Morey's Guide in 1908 the Pearl-bordered was still being referred to as 'plentiful' but from then on there is a real dearth of records for about 50 years and this probably reflects the loss of the butterfly due to the reduction of managed woodland. All of the last known records came from the north of the Island and the following list gives all the sites where it has been seen since 1928.

Parkhurst Forest	SZ475909 H.G.Jeffery 1928, a note states 'after a period of decline now on the up grade' IWNHAS records. From 1984 until the present there are many records from this site and it is now the only known location for the butterfly.
Rowridge	SZ452864 E.Wilcox 1990, also recorded by other observers at this time. There is a high probability that this was an unauthorised release. IWNHAS records.
Bouldnor Copse	SZ383903 C.Chatters 1990 IWNHAS records. This site was recorded as holding the species in the late 1980's by the Nature Conservancy Council.
Firestone Copse	SZ555910 seen up to 1981 by E.Wilcox. A.Redfern 1990 and B.Warne 1991-94. These later records were probably an unauthorised release. IWNHAS records.
Newtown	SZ422907 R.Grogan et al 1991. A certain unauthorised release. IWNHAS records. Also recorded in the area by J.Lobb in 1962 and at Brickfields in 1976. IWNHAS records.
Kemphill Moor/ Rowlands Wood Railwayline.	SZ565895 1960 many records

Site Surveys.

Parkhurst Forest. Forestry Commission.

This is the largest tract of woodland on the Island and in many ways it resembles parts of the New Forest in Hampshire. It consists of the remnants of ancient pasture woodland, long established heathland and modern conifer and broadleaf plantations; it is still actively managed. There are areas of Sessile Oak *Quercus petraea* and Beech *Fagus sylvatica* which are relatively old, dating back to the late 18th and early 19th century. There is a rich lichen flora and many ancient woodland indicator species of vascular plants are still present. The forest is criss crossed with many rides and paths, some narrow and closed in and others quite wide and kept clear mechanically. A number of clear fell and replanting areas are present in various stages of succession. Our first visit on the 9th April was to look at the habitat and its suitability for Pearl-bordered and to check the distribution and density of violets as well as to see if we could find any signs of larval activity. Some of the rides had been mown and the cuttings left in situ thus covering over any violet plants also many rides were full of thick coarse grasses and thus unsuitable. We found larval activity on only two plants. The distribution of the food plant was rather patchy with more poor sites than good.

On the 20th May we made our second visit to look for emerged adults; we counted 6 at the first site, at the second there were 5, at the third we saw 3 and at the fourth a singleton. These are not very high numbers compared with previous years and the Annual Indices for the transects conducted by John Rowell also show numbers gradually declining. Most of the sightings are now confined to an area in the mid-south western section and indicate a gradual contraction of suitable habitat which is, in turn becoming too tall and shaded for the butterfly to flourish. At a meeting with Tom Ransom, the ranger for the forest, he outlined the management plans to be put in place over the next few years. These have been written to include a strategy for the survival and hoped- for expansion of the Pearl-bordered

fritillary in the wood and Tom indicated that work would start this October (2004) on implementing the plan. In simple terms the plan is to create a series of areas in the forest running from the mid-west down to the south-west corner and then east which will be cut and replanted on a basic four year cycle which seems to be the optimum time span for the butterfly. The Pearl-bordered, along with many other species of butterfly, can only survive as part of what is called a metapopulation which can be defined as a number of small, local colonies that can access each other either directly or indirectly. What this means in practice is that as one area becomes unsuitable the butterfly can move to another or if a colony dies out there are other colonies nearby to maintain an overall viable population. Parkhurst obviously at one time fulfilled this criteria and there must have been many small colonies moving round the forest as conditions changed. The plans put forward by the Forestry Commission will in part emulate this past practice and hopefully see the Pearl-bordered fritillary flourish for years to come. The present ride management is probably unsuitable and this is an area that requires a change of practice. A number of subsequent visits were made but totals did not exceed those of the 20th May.

Firestone Copse. Forestry Commission.
This is an extensive mixed deciduous /conifer wood bisected by the road from Havenstreet to Wootton, with many footpaths, a car park and a picnic area. Consequently it has a high recreational value and is thus prone to disturbance. Pearl-bordered were present here and recorded as late as the 1960's but died out due to lack of management at about this time. Subsequent sightings in the late 1980's and early 1990's were almost certainly due to unauthorised releases. The wood now is very heavily overgrown and shaded with the only open area near the car park. The site of the last records were just across the road from the car park but this also is overgrown and unsuitable habitat for this butterfly. A report from here this May that a fritillary had been seen prompted an immediate and thorough search by the authors but to no avail. We think that this was a misidentification but nevertheless thought it worth checking.

Briddlesford Copse. People's Trust for Endangered Species.
A fairly large area of ancient woodland that has had some management work carried out in the past few years. This is predominately a heavily shaded Oak *Quercus robur* and Beech *Fagus sylvatica* wood with hazel understory and large clearings of felled oak, a lot of which have been left in the wood; it is also quite damp in places and the north-western boundary adjoins the upper reaches of Wootton Creek. The Isle of Wight Steam Railway runs through the wood from north-west to south-east. There is a good ground flora with Violets, Bugle, Primrose and narrow leaved Lungwort *Pulmonaria longifolia* present as well as Devil's bit scabious. At the moment it is difficult to envisage the outcome of the management work being carried out but we know one of the main considerations is for the Dormouse *Muscardinus avellanarius* population found in the wood plus Red squirrel *Sciurus vulgaris* and Bats *Chiroptera* thus any project for the Pearl-bordered would have to bear this in mind. Work along some of the rides may be of help if any introduction scheme was contemplated as the butterfly is now extinct here.

Walkershill Copse. Forestry Commission.
This copse was once similar to Briddlesford but is now heavily overgrown and the last vestiges of its ground flora are due to vanish soon. There has been no management work here for at least twelve years and it is now totally unsuitable for any fritillary species.

Combley Great Wood. Forestry Commission.
A large wood that, with the exception of some small scale Hazel coppicing about ten or twelve years ago, has not been managed or worked for about fifty years. There are now no open areas and the copse requires a major and expensive restoration scheme before any nature conservation benefits would start to appear.

Rowlands Wood M.Poland, Wight Conservation.
This is another woodland bisected by the railway line, containing a useful mix of tree species and some wide rides. Although some ancient woodland is present, much of the rest of the wood was planted in the 1940s. Tree species present include Beech, Oak, Sweet Chestnut, Sycamore *Acer pseudoplatanus* and Conifers. There are also some large Aspen *Populus tremula* present. Although there are considerable possibilities for managing this wood for nature conservation purposes, it is currently too densely shaded to support a population of Pearl-bordered fritillary. A colony of this butterfly was present along the woodland margins abutting the railway line in the 1960s

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Chillingwood Copse. M.Poland, Wight Conservation.
An interesting copse with wide rides running east to west and north to south, an area in the south-eastern corner contains a considerable long established secondary woodland element. Elsewhere, much of the copse has been subject to a planting scheme in the 1950s. Oak, Sweet Chestnut, Beech, Scots Pine *Pinus sylvestris* and Larch *Larix deciduas* are dominant tree species. The ground flora provides many and varied nectar sources including Primrose, Bugle and Narrow-leaved lungwort. There are several damp areas and in the west the copse is bounded by extensive marshy meadows. The railway runs alongside the northern boundary of the copse.

When considering reintroduction schemes serious thought should be given to the possibility of a project based upon Briddlesford, Walkershill, Chillingwood, and Kemphill Moor Copse and Rowlands Wood. Included here is an extract from a letter sent to the authors by Brian Warne. 'During the war the copse called Kemphill Moor was cut, completely cleared and replanted. A few years after the war I went for a walk there and found Pearl-bordered fritillaries flying along the rides, not abundantly but fairly numerous. They were also found along the railway line which runs between this copse and Rowlands Wood.' The crucial factor here is the linking of the woods by the railway line and perhaps with the cooperation of the Rail Company plus the various relevant land owners and maybe overseen by a responsible body there is a real chance of creating a number of colonies in these woods which would then have access to the whole area; the railway line would be a habitat in its own right as well as providing the link.

Newtown Walters Copse. National Trust.
This is an area of predominantly Oak woodland, with Ash *Fraxinus excelsior* also present in some quantity. Much of the understory is coppiced Hazel, although Field Maple *Acer campestre* is well represented. Parts of the copse are believed to be ancient woodland, although there is much naturally regenerating secondary woodland. The copse contains a rich ground flora and good shrub layer; it is actively managed for wildlife. There are also some wide rides and clearings. Pearl-bordered fritillary was recorded here in the 1990s for a few years, and to the authors' certain knowledge the sightings were the result of unauthorised releases using stock from Parkhurst Forest. Earlier records from the 1960s from J.Lobb do not specify sites but it appears that the butterfly was still relatively common anywhere suitable. Walters Copse is well managed but due to its small size and importance for other species it is not considered suitable for any reintroduction scheme.

Bouldnor Copse. Forestry Commission.
This is a large tract of mixed woodland with Oak being the dominant deciduous tree species. The area has been subject to considerable planting schemes during the early parts of the 20th century. It is similar in character to parts of Parkhurst Forest, with wide rides and areas of felling and replanting. Pearl-bordered fritillary was recorded here in 1990 and it is considered that the wood could once again support a small population of the butterfly. However, precise management for the species would have to be maintained as there are no other suitable sites nearby to help create a number of colonies.

SMALL PEARL-BORDERED FRITILLARY *Boloria selene* (Denis & Schiffermuller 1775)

UK BAP status	Species of Conservation Concern
National Status	Medium Priority
Regional Status (RAP)	High Priority
Regional Decline	Approximately 80% of sites lost in last decade
European Status	Not threatened, but declining in some countries
Protection under WCA 1981	Not listed

General description.

An early Flandrian colonist of Britain (Dennis 1977) the Small pearl-bordered has a less restricted range than its close relative the Pearl-bordered fritillary. This is due to its ability to make use of differing habitats as it can flourish in damp grassland and moorland as well as woodland clearings where it can overlap with Euphrosyne. It is wide spread in England and Wales, with a western bias and it can also be found right across Scotland; it is absent from Ireland.

The Small pearl-bordered is a Nymphalid in the Argynninae subfamily and is of the genus Boloria. Originally described by Merrell (1666) it was thought to be no different than Pearl-bordered and it was not until 1803 that it was given its present name by Haworth. The Small pearl-bordered's life cycle is broadly similar to Pearl-bordered insomuch it is normally univoltine with eggs being laid, usually singly, on or near the larval foodplant, Common Dog Violet. They hatch in about 10-14 days and hibernate in autumn in leaf litter. Pupation is in late April and into May with the flight period slightly later than Pearl-bordered ie. late May and continuing to the end of June. The adult female is slightly larger than the male and the diagnostic feature of the butterfly are the markings on the underside of the hind wings which have many silver 'pearls' instead of the two of Euphrosyne. Both species have seven 'pearls' around the trailing edge of the hind wing.

Its status on the Isle of Wight has been much reduced since it was described in Morey (1909) as a local species, but fairly plentiful where it occurs. West Cowes, Rew Down, Bembridge and Parkhurst Forest are the only sites specifically mentioned. Unfortunately, no exact locations are indicated. Until 10 or 12 years ago there was still one small colony in Parkhurst Forest but the butterfly is now confined to the Ningwood, Cranmore area. The list of historical and current sites is surprisingly small compared to Pearl - bordered fritillary, and is as follows :

Sandown	SZ 585848	A. G. More. 1860. In Venables. Site not specified.
Quarr Woods	SZ 507924	A. G. More 1860. In Venables. Site not specified.
Ryde	SZ 595925	A. G. More 1860. In Venables. Site not specified.
Cowes	SZ 4996	C. Morley in Morey 1909. Site not specified.
Rew Down	SZ 548777	H. F. Poole in Morey 1909. Site not specified.
Bembridge	SZ 6588	H. F. Poole in Morey 1909. Site not specified.
Parkhurst Forest	SZ 475909	Scattered records until the 1990's. IWNHAS
Borthwood	SZ 570844	H. F. Poole in Morey 1909
Newtown	SZ 422907	T. D. Fearnehough 1972. Refers to Cranmore area. Records to present day.

Site Surveys.

Parkhurst Forest. Forestry Commission.

The area to the north - west of the forest that traditionally held this butterfly is now totally unsuitable and none have been seen there for years. Many recorders have concluded that Small Pearl - bordered

fritillary must now be extinct in Parkhurst Forest, but in 2001 and 2002 J. M. Cheverton and D. Biggs refound the species. Numbers were extremely low and it is likely that these were the last "stragglers" of a dying colony. There have been no records since. In the unlikely event that the species is still present the management plans about to be implemented to benefit populations of the Pearl - bordered fritillary would additionally benefit the current species.

Ningwood, Cranmore. Various owners.
Small Pearl - bordered fritillary occurs here on several areas which are fragmented by private gardens and by the Solent Road which runs directly through the area in a north - west to south - east direction. These areas will therefore be dealt with separately.

Cranmore SSSI. Hampshire & Isle of Wight Trust.
Situated to the west of Solent Road, it is accessed via a path running through a belt of deciduous woodland and opening out onto the main reserve. This area of rather overgrown clay heath with dense patches of scrub and stands of Willow *Salix* sp. occupies around 6.5 hectares. In addition to Bell Heather *Erica cinerea* and Heather *Calluna vulgaris* the ground flora includes large amounts of Tormentil *Potentilla erecta*, Saw - Wort *Serratula tinctoria* and Devil's - bit Scabious. scrubby Bramble, Dog Rose *Rosa canina* and Birch makes up the bulk of the scrub layer. The northern perimeter of the site is bordered by mature Oak. The area is a remnant of what was originally open heath. It is currently managed largely for the Reddish Buff moth *Acosmetia caliginosa* and also Small Pearl - bordered fritillary. The latter has been present here in fair numbers for many years.

A preliminary visit on 26th May failed to yield any specimens of the fritillary. However a visit on June 2nd (A. Wright) produced three specimens, one of which was present along the path leading to the site. On a subsequent visit by both authors on 7th June, 14 specimens were observed on the SSSI site. This was not the peak emergence since other observers, who visited slightly later in June recorded some 30 individuals.

Current management on the site is centred around the manual clearance of small patches of scrub bordering the more open areas of the site. This appears to be creating favourable conditions for the continued success of the Small Pearl - bordered fritillary on site. However, in the authors' opinion, the scale of this operation could probably be increased without detrimental effect, since over - scrubbing of the site will deleteriously affect the fritillary's survival here.

Another factor worthy of consideration is the rate at which parts of the site (particularly at the northern end) are effectively being lost to willow scrub. Whilst this provides useful bird habitat it is no longer of use to either Small Pearl - bordered fritillary or Reddish Buff moth, and consideration could be given to making some inroads into this willow scrub in order to reclaim some more heathland in the longer term. Plans to introduce low scale cattle grazing on the site are currently under consideration by the Trust, but should be very closely monitored.

Cranmore SSSI , Private Landowner
This site comprises almost 2 hectares of private garden much of which is relict clay heath with a scrub element similar to the Cranmore SSSI, although the willow element is largely lacking.
Two main areas within the site, which are joined by a pathway with mature hedges on either side, support Reddish Buff moth and have been subjected to a recent programme of cutting and scrub reduction in order to maintain the habitat in appropriate condition for this species. This regime is also likely to prove beneficial to Small Pearl - bordered fritillary , and a visit on 7th June yielded three specimens flying around a recently cut area. Maximum counts for this area during 2001 and 2002 were up to 30 per day, although this diminished to 7 per day in 2003 (Ian Fletcher, pers comm.).

Site to north - east of Solent Road. Mixed ownership.

This roughly L - shaped site occupies approximately 1.5 hectares, and in comparison to the two previous sites has been considerably more intensively managed in the recent past. The area is entered by means of a public footpath and the land immediately to the west of the path has been recently cut . This operation was done in stages with one part being cut in 2002 and the remainder in 2003, to provide growth at different stages. The lower end of the site was also cut in 2003. Again the site is comprised of clay heath, but due to the recent cutting regime the scrub content was considerably lower than on the previous two sites.

No Small Pearl - bordered fritillaries were noted here during a visit on June 7th, although Reddish Buff moth was recorded on 26th May.

Discussion.

Duke of Burgundy.

It is highly probable that there will continue to be occasional sightings of this elusive species from a number of sites such as the Brook Down area and possibly the Newbarn area. With respect to the former site, it is already managed to benefit the butterfly species present, and the current practises are likely to benefit any extant population of Duke of Burgundy.

Unfortunately the Newbarn site suffers from it's small size and relative isolation from other nearby areas of good chalk downland. Although a sound management scheme is already in place, the status of the butterfly here must be regarded as vulnerable.

There can be little doubt that the main key to the continued survival of this butterfly on the Island is in ensuring it's continued presence at the Monkham site. This is now the only site where the Duke of Burgundy has been found as more than singletons with any degree of consistency for at least the last decade. Consideration should be given to enlarging the area referred to as site A by removal of trees to the south of this area, in order to enlarge the existing open space, which seems to be an important feeding station for adults. Over - scrubbing over site A will doubtless have a deleterious effect. Further studies to establish how the butterfly interacts between the two compartments of the site would be extremely useful. It may be that the current annual swiping regime on area B is not affecting the Duke of Burgundy population, although this seems questionable. A reduction in the area of site B swiped annually, or the introduction of a system whereby this area is split into two sections, each being swiped in alternate years may allow an assessment of the true impact of the current regime on the population size, particularly with respect to the survival of larvae. Until the effects of this current management are understood more fully, it is unlikely that progress can be made in increasing the population, or a grazing scheme is instituted as outlined previously.

Pearl - bordered fritillary.

This species is now confined to Parkhurst Forest on the Isle of Wight, and even here it is in decline. The current state of the forest is such that there are too few areas providing suitable habitats to allow a good metapopulation to develop. Currently there appear to be only three or four areas which are regularly utilised by the fritillary, and these small populations are tending to become isolated from each other. This is a relatively sedentary species, so fragmentation of suitable habitat prevents the establishment of a viable metapopulation. However, plans to reintroduce a system which will emulate past coppicing and felling practices which historically provided the species with suitable habitats are to be implemented in October 2004.This should lead to more pockets of suitable habitat being available in closer proximity to each other and thus encourage the establishment of further small populations of Pearl - bordered fritillary within the wood. With time this should lead to the establishment of a viable metapopulation. There are other areas which, if managed sympathetically, could also support a metapopulation of Pearl - bordered fritillary. The woodland complexes in the

Briddlesford to Ashey area, and particularly those that have a boundary with the railway line form a large expanse of woodland in which it would be possible to create a good number of areas of suitable habitat for Pearl - bordered fritillary, and reintroduction at that stage could well prove viable. However, such a project would involve commitment from a large number of landowners and additionally may clash with the current management objectives within some of these woods, but we consider that this scheme is worthy of consideration.

Small Pearl - bordered fritillary.

Again, this species is now confined to a single area within the Island. The main threat to this species would doubtless be if the Cranmore sites were allowed to be overrun by successional scrub, which would surely lead to the demise of the species on the Isle of Wight. However, all the land - owners where this species currently occurs are aware of this, and indeed are taking active steps to manage their sites appropriately. Providing that this practice continues, it seems unlikely that the Small Pearl - bordered fritillary is under major threat. Since the chances of re - establishing this species at other Island sites are small, consideration could be given to increasing the amount of suitable habitat adjacent to the existing Cranmore sites.

However, the surrounding land is in private ownership and it was beyond the remit of the current survey to investigate this line of inquiry.

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NOTABLE MOTHS RECORDED IN THE ISLE OF WIGHT DURING 2004

Sam Knill-Jones

It was a very dry year at Freshwater with 754.1 mm rainfall compared with 774.1 mm the previous year, being the driest since 1997. There were some very mild days in February and 18°C was recorded at Gravesend on 4th February. There was a large migration of Painted Ladies (*Cynthia cardui*) Linn.)) during this month and every migrant moth ever recorded during February was noted along the South coast. The driest month was June with 24.4 mm rainfall and September was also an exceptionally dry month. It was the wettest August since 1956 with 75 mm rainfall, accompanied by some very strong South-westerly gales. The wettest month of the year was October with 157 mm rainfall and the wettest day of the year was 7th July with 31 mm rainfall. It was the driest November since 1988 with 60 mm rainfall. There were 127 days without rain and 212 days with measurable rain. There was a covering of about 5 cm of snow on 26th February with a further light flurry of snow on 11th March.

The year started with a considerable migration in February with a Red-headed Chestnut (*Conistra erythrocephala*) (D. & S.)) at Bonchurch on 13th February, a Ni Moth (*Trichoplusia ni*) (Hb.)) at Totland on 10th February, two Cosmopolitan (*Mythimna loreyi*) (Dup.)) at Freshwater on 11th and 13th February and an example of the rare Pyralid *Euchromius ocellea* (Haw.)) at Totland on 11th February.

There were three species new to the Island although the first, which was taken this year, was actually taken in 1996.

Cydia amplana (Hubn.)
I recorded ten of the above migrant species at light in my garden at Totland between 30th July and 21st August. However, on looking through my collection of micros, I noticed a series of five taken on 20th August 1996 at Freshwater.

Phyllonorycter platani (Staud.)
Dr David Biggs found many mines present, most vacated, but some still tenanted of the above species on *Platanus hispanica* at Fairlee, Newport on 27th September.

Cameraria ohridella
Dr David Biggs found one mine with active feeding larvae on *Aesculus hippostaneum* at Pelham Woods, Ventnor, of the above species on 15th September. He also later recorded it at St Lawrence, Ryde and Newport later in the month.

Other rare migrants that were recorded are given below:

Red-headed Chestnut (*Conistra erythrocephala*) (D. & S.))
A second example was taken at Cranmore by Ian and Cathy Fletcher on 10th November.

Bedstraw Hawk (*Hyles gallii*) (Rott.))
Dr David Biggs observed two of the above species on the cliff top at Whale Chine by day on 7th August.

Orache (*Trachea atriplicis*) (Linn.).
Two examples were recorded by Sam Knill-Jones at Totland on 17th and 24th August.

Four-spotted Footman (*Lithosia quadra*) (Linn.).
Three examples were noted at Totland on 8th, 10th and 21st August and a further one was noted at Cranmore on 17th August.

Tree-lichen Beauty (*Archanara algae*) (Esp.)).
James Halsey recorded two at Bonchurch on 7th August and a further one on 8th August.

Bloxworth Snout (*Hypena obsitalis*) (Hb.)).
Peter Cramp caught one in his porch at Ventnor on 5th December. This is the third record for the Island.

Evergestis extimalis (Scop.).
Two were taken at Totland on 5th and 9th August.

Diasemiopsis ramburalis (Dup.).
A very late example was noted by Sam Knill-Jones at Totland on 2nd November.

A Four Spotted (*Tyta luctuosa*) (D & S)) was recorded at Totland on 5th August which was the first record since 27th July 1949, when Dr K G Blair took it at Freshwater. Dave Wooldridge noted a Dark Tussock (*Dicallomera fascelina*) (Linn.)) which was the first record since I took three at Freshwater in August 1973. I recorded the Striped Wainscot (*Mythimna pudorina*) (D & S)) at Totland on 9th July which is the second Island record since one was recorded at Godshill on 12th July 1994. I recorded the Sand Dart (*Agrotis ripae*) (Hb.)) at Totland on 10th June. Although this species is locally common at Bembridge and St Helens, this was the first to be recorded in the West Wight since one at Freshwater on 13th July 1994. Three examples of the very local *Pempeliella ornatella* (D & S.) were recorded at Totland on 2nd, 5th and 9th September which are the first records for the Island for over one hundred years. I noted the local species *Ypsolopha sequella* (Clerck.) at Totland on 8th August, and *Tinea semifulvella* (Staint.) on 14th July at Totland which happens to the first recent record.

The Crambid *Thisanotia chrysonuchella* (Scop.) was recorded in small numbers on a Society meeting on Arreton Down on 22nd May. These are the first records of this declining species since 28th May 1993 when one was recorded on Chale Green.

Dr David Biggs has recorded the following leaf miners which have only occasionally been recorded on the Island before.

Stigmella luteela (Staint.)
On *Betula pendula* at Ventnor Botanic Gardens on 25th October, which is the first record since one was noted at Parkhurst Forest in 1975.

Coleophora salicorniae (Heinemann & Wocke).
Larva on *Salicornia pusilla* at Newtown on 5th October which is the first record for the Island since 1887. Identification confirmed by Dr John Langmaid.

Coleophora salinella (Stt.).
Numerous Coleophoid cases on Sea Purslane (*Halimione portulacoides*) at St Helens Mill Pond on 28th September. The last apparent record of this moth was in Morey (1909). Dr John Langmaid confirmed its identification.

Argyresthia goedartella (Linn.).
An adult from Alder at Hurst Stake on 17th August which is only the second record for the Island.

There are two examples of exceptional late broads which I should like to mention. On 4th December I recorded a possible third brood example of the Willow Beauty (*Peribatodes rhomboidaria* (D & S.)) at light in my garden. On 6th December I took a very late second brood example of the Dark Arches (*Apamea monoglypha*) (Hufn.)). I have taken examples of a partial second brood in October but never as late as December. Both specimens were in immaculate condition. Finally, I should like to mention an extremely early capture of the Common Quaker (*Orthosia cerasi*) *(*Fabr.)) on 25th November at Totland. This species usually emerges in the Spring!

2004 was an average year with two micros new to the Island list.

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A PROVISIONAL ANNOTATED CHECKLIST OF ISLE OF WIGHT ACULEATE HYMENOPTERA

Adam S. Wright

Abstract

The author provides a provisional checklist of Isle of Wight aculeate Hymenoptera (excluding Bethyloidea) based on recent field survey, and historical and recent archive material. National status categories are given for relevant species, together with a provisional listing of the local status for each species.

Introduction

Both historically and currently, the Isle of Wight is recognised as an area of national significance for it's aculeate Hymenopteran fauna. The combination of a generally warm climate and a range of habitats of particular appeal to this group of insects make the Island one of the richest areas in the country for these insects. Bees, wasps and ants occupy a wide range of habitats collectively, although individually many species are highly specific in their requirements. Island habitats of particular importance for aculeates include chalk downland, soft rock cliffs and landslips, sandy areas (including heathland), woodland and rough coastal grassland. Amongst these habitats perhaps the soft rock cliffs and landslips are most important, since they are home to a number of species whose national ranges are either solely or largely restricted to the Isle of Wight.

During the course of extensive fieldwork over the last five years the author has recorded Isle of Wight aculeates from all of the above habitats, with a total of 256 species recorded during this period. Searching through data in Morey (1908), Falk (1991), the Hampshire & Isle of Wight Naturalist's Trust database, records in the Isle of Wight Natural History and Archaeological Society archive and the recent Provisional Atlases for Hymenoptera (Edwards , 1997, 1998. Edwards & Telfer 2001, 2002) has yielded records of a further 83 species known from the Island, giving a total of 340 species. This represents some 62% of the total British list of 543 aculeate Hymenoptera (excluding Bethyloidea) - a highly creditable total for an area as small as the Isle of Wight.

Although the above indicates that considerable recording effort has been expended on the group locally, published records are comparatively few and it would appear that no checklist of the Island's aculeate fauna has been published since Morey (1908). In an attempt to rectify this, or at least to provide a starting point, the author offers the following provisional annotated checklist of Isle of Wight aculeates. This list should not be regarded as exhaustive; I am still regularly finding previously unrecorded species , and have done comparatively little work on some groups e.g. ants. Records for Bethyloidea, where there has been little or no recording effort, have been ignored. Doubtless there are also published records which I have overlooked.

It is hoped that this checklist may stimulate further recording in this fascinating group of insects. The author is happy to examine reasonable quantities of material for identification purposes.

A number of the species encountered are considered to be Nationally Scarce or Red Data Book species. The status category definitions and criteria for individual species are those devised by the JNCC and are as follows :

Status Category and Definitions.

RDB 1 - Endangered.

Taxa in danger of extinction and whose survival is unlikely if causal factors continue operating.

Species which are known or believed to occur as only a single population within one 10km square of the National Grid.
Species which only occur in habitats known to be particularly vulnerable.
Species which have shown a rapid or continuous decline over the last twenty years and are now estimated to exist in five or fewer 10km squares.
Species which are possibly extinct but have been recorded in the 20th century and if rediscovered would need protection.

RDB 2 - Vulnerable.
Taxa believed likely to move into the endangered category in the near future if the causal factors continue operating.

Species declining throughout their range.
Species in vulnerable habitats.

RDB 3 - Rare.
Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk

Species which are estimated to exist in only fifteen or fewer post 1970 10km squares. This criterion may be relaxed where populations are likely to exist in over fifteen 10km squares but occupy small areas of especially vulnerable habitat.

Nationally Scarce (Na).
Taxa which do not fall within the RDB categories but which are none - the - less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid.

Nationally Scarce (Nb).
Taxa which do not fall within the RDB categories but which are none - the - less uncommon and thought to occur in between 31 and 100 10km squares of the national Grid.

Nationally Scarce (N).
Species which are estimated to occur within the range of 16 to 100 10km squares.

It should be noted that the true status of a number of species either included in or excluded from the above categories requires review . This is as a result of increased knowledge of a species habits, or recent increases or decreases in population sizes or distributions. Examples include *Philanthus triangulum*, the status of which requires review following a considerable recent range expansion, and *Tachysphex unicolor* sensu stricto, which has recently been separated from *Tachysphex nitidus* and is largely confined to the Isle of Wight and Dorset coasts.

Notes on the Provisional Checklist
The nomenclature used in the provisional checklist follows that of Fitton *et al* (1978) with updates for Scolioidea, Vespoidea and Sphecoidea by Richards (1980), Chrysididae by Morgan (1984) and Pompilidae by Day (1988).Recent colonists such as the Social Wasp *Dolichovespula saxonica* are included. Additionally, recent splits such as the separation of *Tachysphex unicolor* sensu stricto and *T. nitidus* have been incorporated.

Where the author has recorded the species within the last 5 years there is no suffix. Where the species has been recorded only at one or two recent sites localities are given. In other cases a local status has been attempted using the terms common, widespread, local, scarce and rare in ascending order of scarcity.

Species marked with an asterisk (*) have post 1970 confirmed records from either Falk (1991), Edwards (1997, 1998) or Edwards & Telfer (2001, 2002). The bulk of these records will have been vetted, especially in the latter publications, and these records may be assumed accurate.

Species which were recorded in Morey (1908) or are from other historical sources, but have not been recorded since are marked with a +. These are unchecked records and may include some erroneous species due to subsequent nomenclatural changes or "splitting" of species.One or two obvious inaccuracies have been excluded.

With the additional records marked with a + or * it has not always been possible to assign a local status category. Such species are marked "unknown". Some species recorded in Morey are now certainly extinct on the Island (and in some cases in the UK) and are marked as such, others are likely to be extinct and are marked "believed extinct".

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TABLE 1.

PROVISIONAL CHECKLIST OF ISLE OF WIGHT ACULEATE HYMENOPTERA.

GENUS & SPECIES	NATIONAL STATUS	LOCAL STATUS
CHRYSIDIDAE.		
OMALUS Panzer,1801		
aeneus (Fabricius,1787)+	unknown	
auratus (Linnaeus,1758)		Widespread
puncticollis (Mocsary,1887)	Nationally Scarce (Na)	Mottistone Common, America Woods.
HEDYCHRIDIUM		
ardens (Latreille in Coquebert,1801)	St. Helens Duver	
coriaceum (Dahlbom, 1854) +	Rare (RDB3)	unknown
roseum (Rossi,1790)		Headon Warren
HEDYCHRUM		
niemelai Linsenmaier,1959	Rare (RDB3)	Headon Warren
CHRYSIS		
angustula Schenck,1846		Briddlesford woodlands complex
ignita Linnaeus,1758		Local
mediata Linsenmaier,1959		Local
rutiliventris Abeille de Perrin,1879		Castle Haven
viridula Linnaeus,1761 *		Local
TRICHRYSIS		
cyanea (Linnaeus,1758)		Widespread
TIPHIIDAE.		
TIPHIA		
femorata Fabricius,1775		St. Catherine's area
minuta Vander Linden, 1827 +	Nationally Scarce (Nb)	unknown
METHOCA		
ichneumonoides Latreille, 1804	Nationally Scarce (Nb)	Sandy areas on landslips and inland heathland
MYRMOSA		
atra Panzer,1801		Widespread in sandy areas
MUTILLIDAE.		
SMICROMYRME		
rufipes (Fabricius,1787)	Nationally Scarce (Nb)	Redcliff, Castle Haven

SAPYGIDAE.		
SAPYGA		
clavicornis (Linnaeus,1758) *	Nationally Scarce (Nb)	rare
quinquepunctata (Fabricius,1781) *		rare
FORMICIDAE.		
PONERA		
coarctata (Latreille,1802) +	Nationally Scarce (Nb)	unknown
MYRMICA		
rubra (Linnaeus,1758)		common
ruginodis Nylander,1846		common
sabuleti Meinert, 1860 *		unknown
scabrinodis Nylander,1846		widespread
LEPTOTHORAX		
acervorum (Fabricius,1793) *		widespread
tuberum (Fabricius,1775)	Nationally Scarce (Na)	St Catherine's area
TETRAMORIUM		
caespitum (Linnaeus,1758) *		scarce, coastal
SOLENOPSIS		
fugax (Latreille,1798) +	Rare (RDB3)	rare, coastal
STENEMMA		
westwoodi Westwood,1840 +		unknown
MYRMECINA		
graminicola (Latreille,1802) +		unknown
TAPINOMA		
erraticum (Latreille,1798) *	Nationally Scarce (Nb)	unknown
FORMICA		
cunicularia Latreille,1798		Mottistone Common
exsecta Nylander,1846 +	Endangered (RDB1)	Extinct 1913. Previously in Parkhurst Forest.
fusca Linnaeus,1758		common
rufa Linnaeus,1758		Rare - stronghold is Parkhurst Forest
LASIUS		
alienus (Forster,1850)		local
brunneus (Latreille,1798) *	Nationally Scarce (Na)	rare
flavus (Fabricius,1781)		widespread
fuliginosus (Latreille,1798) *		rare
niger (Linnaeus,1758)		common
umbratus (Nylander,1846)		widespread

POMPILIDAE.

DIPOGON		
variegatus (Linnaeus,1758) +		unknown
AUPLOPUS		
carbonarius (Scopoli,1763) *	Nationally Scarce (Nb)	rare
CALIADURGUS		
fasciatellus (Spinola,1808)		widespread
CRYPTOCHEILUS		
notatus (Rossius,1792) *	Vulnerable (RDB2)	rare, St Catherine's area
PRIOCNEMIS		
agilis (Shuckard,1837) +	Nationally Scarce (Nb)	unknown
cordivalvata Haupt, 1927 +	Nationally Scarce (Nb)	unknown
exaltata (Fabricius,1775)		Mottistone Common
fennica Haupt,1927		local, sandy areas
gracilis Haupt,1927	Nationally Scarce (Nb)	local
parvula Dahlbom,1845		local
perturbator (Harris, 1780)		common
pusilla Schiodte,1837		local
susterai Haupt, 1927		local
POMPILUS		
cinerea (Fabricius,1775)		local
AGENIOIDEUS		
cinctellus (Spinola),1808)		scarce
ARACHNOSPILA		
anceps (Wesmael,1851)		common
spissa (Schiodte,1837)		scarce
EVAGETES		
crassicornis (Shuckard,1837)		local
ANOPLIUS		
caviventris (Auruvillius,1907) *	Nationally Scarce (Nb)	rare
concinnus (Dahlbom,1845) *		local
infuscatus (Vander Linden, 1827)		widespread
nigerrimus (Scopoli,1763)		common
viaticus (Linnaeus, 1758) +		unknown
EPISYRON		
rufipes (Linnaeus, 1758)		local
APORUS		
unicolor Spinola, 1808	Nationally Scarce (Nb)	Tennyson Down, Castle Haven

EUMENIDAE.		
ODYNERUS		
melanocephalus (Gmelin in Linnaeus,1790)	Nationally Scarce (Na)	Redcliff, Castle Cove.
spinipes (Linnaeus, 1758) *		local
GYMNOMERUS		
laevipes (Shuckard, 1837) *		rare
MICRODYNERUS		
exilis (Herrich - Schaffer, 1839)	Nationally Scarce (Nb)	scarce
ANCISTROCERUS		
antilope (Panzer, 1798) +	Rare (RDB3)	Extinct
gazella (Panzer, 1798)		
common		
nigricornis (Curtis, 1826) +		unknown
oviventris (Wesmael, 1836) *		scarce
parietinus (Linnaeus, 1761)		scarce
parietum (Linnaeus, 1758)		local
scoticus (Curtis, 1826) *		scarce
trifasciatus (Muller, 1776)		common
SYMMORPHUS		
connexus (Curtis, 1826)	Rare (RDB3)	Priory Woods
gracilis (Brulle, 1832)		scarce
mutinensis (Baldini, 1894)		St. Helens
VESPIDAE.		
VESPA		
crabro Linnaeus, 1758		Briddlesford woodlands, rare.
DOLICHOVESPULA		
media (Retzius, 1783)	Nationally Scarce (Na)	scarce, increasing.
norwegica (Fabricius,1781) *		scarce
saxonica (Fabricius) *	Uncertain (RDBK)	rare
sylvestris (Scopoli,1763)		local
VESPULA		
germanica (Fabricius, 1793)		common
rufa (Linnaeus, 1758)		widespread
vulgaris (Linnaeus, 1758)		common
SPHECIDAE.		
ASTATA		
boops (Schrank, 1972)		local, sandy areas.
DRYUDELLA		
pinguis (Dahlbom, 1832)		St. Helens Duver

TACHYSPHEX		
pompiliformis (Panzer, 1803)		widespread
unicolor (Panzer,1809)		scarce
TRYPOXYLON		
attenuatum Smith,F. 1851		common
clavicerum Lepeletier, 1828		scarce
figulus (Linnaeus, 1758)		local
medium de Beaumont, 1945		scarce
CRABRO		
cribrarius (Linnaeus, 1758)		common
peltarius (Schreber, 1784)		widespread
CROSSOCERUS		
annulipes (Lepetier & Brulle, 1835)		Idlecombe Down
binotatus Lepeletier & Brulle, 1835	Nationally Scarce (Na)	Idlecombe Down
capitosus (Schuckard, 1837)		Wroxall Copse
cetratus (Schuckard, 1837)		local
dimidiatus (Fabricius, 1781)		scarce
elongatulus (Vander Linden, 1829)		local
megacephalus (Rossius, 1790)		widespread
nigritus Lepeletier & Brulle, 1835		local
ovalis Lepeletier & Brulle, 1835		scarce
palmipes (Linnaeus,, 1767) +	Nationally Scarce (Nb)	unknown
podagricus (Vander Linden, 1829)		common
quadrimaculatus (Fabricius, 1793)		common
styrius (Kohl, 1892)		Wroxall Copse
tarsatus (Schuckard, 1837)		Headon Warren, Briddlesford Woodlands
wesmaeli (Vander Linden, 1829)		Headon Warren, St. Helens Duver.
ECTEMNIUS		
cavifrons (Thomson, 1870)		scarce
cephalotes (Olivier, 1792)		common
continuus (Fabricius, 1804)		common
dives (Lepeletier & Brulle, 1835) *		rare
lapidarius (Panzer, 1804) *		rare
lituratus (Panzer, 1804)		common
rubicola (Dufour & Perris, 1840)		common
sexcinctus (Fabricius, 1775)	Nationally Scarce (Nb)	Castle Cove
LINDENIUS		
albilabris (Fabricius, 1793)		common
panzeri (Vander Linden, 1829) +		unknown
ENTOMOGNATHUS		
brevis (Vander Linden, 1829)		widespread

RHOPALUM		
clavipes (Linnaeus, 1758) +		unknown
OXYBELUS		
argentatus Curtis, 1833 *	Nationally Scarce (Na)	rare
mandibularis Dahlbom, 1845 *	Nationally Scarce (Na)	rare
uniglumis (Linnaeus, 1758)		common
PSEN		
atratinus (Morawitz, F., 1891)	Vulnerable (RDB2)	rare, soft rock landslips
bicolor Jurine, 1807 +	Vulnerable (RDB2)	unknown
bruxellensis (Bondroit, 1933)	Nationally Scarce (Na)	Headon Warren
dahlbomi (Wemael, 1852)		Mottistone Common
lutarius (Fabricius, 1804)		Headon Warren
spooneri (Richards, 1948) +	Rare (RDB3)	unknown
unicolor (Vander Linden, 1829)	Nationally Scarce (Na)	scarce, soft rock landslips
PSENULUS		
pallipes (Panzer, 1798)		scarce
schencki (Tournier, 1889)	Nationally Scarce (Na)	Briddlesford woodlands, Castle Haven
PEMPHREDON		
inornata Say, 1824		widespread
lethifer (Schuckard, 1837)		common
lugubris (Fabricius, 1793)		widespread
morio Vander Linden, 1829 +	Nationally Scarce (Nb)	unknown
DIODONTUS		
luperus Schuckard, 1837		Headon Warren
minutus (Fabricius, 1793)		common
tristris (Vander Linden, 1829)		scarce
PASSALOECUS		
corniger Schuckard, 1837 +		unknown
gracilis (Curtis, 1834) *		unknown
insignis (Vander Linden, 1829)		scarce
monilicornis Dahlbom, 1842 +		unknown
singularis Dahlbom, 1844		widespread
AMMOPHILA		
sabulosa (Linnaeus, 1758)		common
PODALONIA		
affinis (Kirby, 1798) *	Rare (RDB3)	unknown
hirsuta (Scopoli, 1763) *	Nationally Scarce (Nb)	unknown
MELLINUS		
arvensis (Linnaeus, 1758)		common
crabroneus (Thunberg, 1791) +	Endangered (RDB1+)	Extinct

NYSSON		
dimidiatus Jurine, 1807	Nationally Scarce (Nb)	Mottistone Common
interruptus (Fabricius, 1798) *	Vulnerable (RDB2)	unknown
spinosus (Forster, 1771)		scarce
trimaculatus (Rossius, 1790)	Nationally Scarce (Nb)	widespread
ALYSSON		
lunicornis (Fabricius, 1798) *	Nationally Scarce (Na)	unknown
GORYTES		
bicinctus (Rossius, 1794)	Nationally Scarce (Nb)	local
quadrifasciatus (Fabricius, 1804) *		unknown
tumidus (Panzer, 1801)		Luccombe Down
ARGOGORYTES		
fargeii (Schuckard, 1837) *	Nationallly Scarce (Na)	unknown
mystaceus (Linnaeus, 1761)		common
CERCERIS		
arenaria (Linnaeus, 1758)		common
ruficornis (Fabricius, 1793)		Mottistone Common, Headon Warren
rybyensis (Linnaeus, 1771)		common
PHILANTHUS		
triangulum (Fabricius, 1775)	Vulnerable (RDB2)	Common. Status needs downgrading

COLLETIDAE.

COLLETES		
daviesanus Smith, F. ,1846		widespread
fodiens (Geoffroy in Fourcroy, 1785)		common
halophilus Verhoeff, P. M. F.,1845	Nationally Scarce (Na)	St. Helens Duver
marginatus Smith, F.1846	Nationally Scarce (Na)	St. Helens Duver
similis Schenck, 1853		local
succinctus (Linnaeus,1758)		local
HYLAEUS		
annularis (Kirby, 1802)		common
brevicornis Nylander, 1852		common
communis Nylander, 1852		common
confusus Nylander, 1852		common
euryscapus Forster, 1871 +	Rare (RDB3)	unknown
hyalinatus Smith, F., 1843		common
pectoralis Forster, 1871 *		unknown
signatus (Panzer, 1798) +	Nationally Scarce (Nb)	unknown

ANDRENIDAE.

ANDRENA		
alfkanella Perkins, R. C. L. 1914	Rare (RDB3)	Castle Cove
angustior (Kirby,1802)		local
apicata Smith, F., 1847	Nationally Scarce (Nb)	Headon Warren
barbilabris (Kirby,1802)		local
bicolor Fabricius, 1775		common
chrysosceles (Kirby, 1802)		common
cineraria (Linnaeus, 1758)		common
clarkella (Kirby, 1802)		Borthwood, Headon Warren
denticulata (Kirby,1802)		Idlecombe Down, Priory Woods
dorsata (Kirby, 1802)		common
falsifica Perkins,R. C. L.,1914	Nationally Scarce (Na)	Tennyson Down
flavipes Panzer,1798		common
florea Fabricius, 1793 *	Rare (RDB3)	unknown
fucata Smith, F., 1847		Luccombe Down
fulva (Muller in Allioni, 1766)		common
fulvago (Christ, 1791	Nationally Scarce (Na)	scarce,Chalk grassland
fuscipes (Kirby,1802)		Headon Warren
haemorrhoa (Fabricius,1781)		common
hattorfiana (Fabricius, 1775) +	Rare (RDB3)	believed extinct
humilis Imhoff, 1832 +	Nationally Scarec (Nb)	unknown
labialis (Kirby,1802)		common
labiata Fabricius1781	Nationally Scarce (Na)	local
marginata Fabricius, 1777	Nationally Scarce(Na)	Culver Down
minutula (Kirby, 1802)		common
minutuloides Perkins, R. C. L., 1914	Nationally Scarce (Na)	Idlecombe Down, Castle Haven
nigroaenea (Kirby, 1802)		common
nigriceps (Kirby, 1802) *	Nationally Scarce (Nb)	rare
nitidiuscula Schenck 1853	Rare (RDB3)	Culver Down, Castle Cove
ovatula (Kirby, 1802)		common
pilipes Fabricius, 1781 *s.l.*	Nationally Scarce (Nb)	widespread
proxima (Kirby, 1802)	Rare (RDB3)	Woody Bay, St. Catherines
pubescens Olivier, 1789		common
rosae Panzer, 1800+	Vulnerable (RDB2)	unknown
semilaevis Perez,1903		Idlecombe Down, Mottistone Common
scotica Perkins, R. C. L., 1919		common
simillima Smith, F. 1851 +	Vulnerable (RDB2)	unknown
subopaca Nylander, 1848		local
synadelpha PerkinsR. C. L., 1914		scarce
thoracica (Fabricius, 1775)		common
trimmerana (Kirby, 1802)	Nationally Scarce (Nb)	common
varians (Rossius, 1792)	Nationally Scarce (Nb)	Headon Warren
wilkella (Kirby, 1802)		common

PANURGUS		
banksianus (Kirby, 1802)		Idlecombe Down, Headon Warren
calcaratus (Scopoli, 1763)		local
HALICTIDAE.		
HALICTUS		
confusus Smith, 185	Rare (RDB3)	St. Helens Duver
eurygnathus Bluthgen, 1931 +	Endangered (RDB1+)	Extinct
maculatus Smith, F.,1848 +	Endangered (RDB1+)	Extinct
rubicundus (Christ, 1791)		local
tumulorum (Linnaeus, 1758)		common
LASIOGLOSSUM		
albipes (Fabricius, 1781)		common
angusticeps (Perkins, R. C. L., 1895)	Rare (RDB3)	Redcliff, Woody Bay
calceatum (Scopoli, 1763)		common
fratellum (Perez, 1903)		common
fulvicorne (Kirby, 1802)		common
laevigatum (Kirby, 1802) +		unknown
lativentre (Schenck, 1853)		common
leucopus (Kirby, 1802)		common
leucozonium (Schrank, 1781)		common
malachurum (Kirby, 1802)	Nationally Scarce (Nb)	common
minutissimum (Kirby, 1802)		common
morio (Fabricius, 1793)		common
nitidiusculum (Kirby, 1802) +		unknown
parvulum Schenck, 1853)		scarce
pauperatum (Brulle, 1832) +	Rare (RDB3)	unknown
pauxillum (Schenck, 1853)	Nationally Scarce (Na)	widespread
prasinum (Smith, F., 1848) *		unknown
punctatissimum (Schenck, 1853)		common
puncticolle (Morawitz, F., 1872)	Nationally Scarce (Nb)	common
smeathmanellum (Kirby, 1802)		common
villosulum (Kirby, 1802)		common
xanthopus (Kirby, 1802) *	Nationally Scarce (Nb)	unknown
zonulum (Smith, F., 1849)		widespread
SPHECODES		
crassus Thomson, 1870	Nationally Scarce (Nb)	widespread
ephippius (Linnaeus, 1767)		common
geoffrellus (Kirby, 1802)		Castle Haven, Headon Warren
gibbus (Linnaeus, 1758)		Mottistone Common
miniatus von Hagens, 1882	Nationally Scarce (Nb)	Headon Warren
monilicornis (Kirby, 1802)		common
niger von Hagens, 1882	Rare (RDB3)	local

pellucidus Smith, F., 1845		Headon Warren, St. Helens Duver
puncticeps Thomson, 1870		scarce
reticulatus Thomson, 1870	Nationally Scarce (Na)	Castle Cove, Brook Down
rubicundus von Hagens, 1875	Nationally Scarce (Na)	Redcliff, Castle Haven
MELITTIDAE.		
MELITTA		
haemorrhoidalis (Fabricius, 1775)		local
leporina (Panzer, 1799) *		unknown
tricincta (Kirby, 1802)	Nationally Scarce (Nb)	Idlecombe Down, East Afton Down
MACROPIS		
europaea Warncke, 1973 *	Nationally Scarce (Na)	unknown
DASYPODA		
altercator (Harris, 1780)	Nationally Scarce (Nb)	St. Helens Duver
MEGACHILIDAE.		
ANTHIDIUM		
manicatum (Linnaeus, 1758)		local
STELIS		
punctulatissima (Kirby, 1802) *	Nationally Scarce (Nb)	unknown
CHELOSTOMA		
campanularum (Kirby, 1802)		local
florisomne (Linnaeus, 1758)		widespread
OSMIA		
aurulenta (Panzer, 1799)		common
caerulescens (Linnaeus, 1758)		widespread
leaiana (Kirby, 1802) +		unknown
pilicornis Smith, F., 1846 *	Nationally Scarce (Na)	unknown
rufa (Linnaeus, 1758)		common
xanthomelana (Kirby, 1802) *	Endangered (RDB1)	believed Extinct
HOPLITIS		
claviventris (Thomson, 1872)		common
spinulosa (Kirby, 1802)		common
MEGACHILE		
centuncularis (Linnaeus, 1758)		common
leachella Curtis, 1828	Nationally Scarce (Nb)	local
ligneseca (Kirby, 1802)		common
maritima (Kirby, 1802)		scarce
versicolor Smith, F., 1844		common
willughbiella (Kirby, 1802)		common

COELIOXYS		
conoidea Illiger, 1806		widespread
elongata Lepeletier, 1841		rare
inermis (Kirby, 1802)		St. Helens Duver
quadridentata (Linnaeus, 1758) +	Rare (RDB3)	unknown
rufescens Lepeletier & Serville, 1815		common
ANTHOPHORIDAE.		
NOMADA		
armata Herrich - Schaffer, 1839 +	Endangered (RDB1)	Extinct
conjungens Herrich - Schaffer, 1839	Vulnerable (RDB2)	Castle Haven
fabriciana (Linnaeus, 1767)		common
flava Panzer, 1798		common
flavoguttata (Kirby, 1802)		common
flavopicta (Kirby, 1802) +	Nationally Scarce (Nb)	unknown
fucata Panzer, 1798	Nationally Scarce (Na)	common
fulvicornis Fabricius, 1793	Rare (RDB3)	Idlecombe Down, Redcliff
goodeniana (Kirby, 1802)		common
lathburiana (Kirby, 1802)	Rare (RDB3)	local
leucopthalma (Kirby, 1802)		widespread
marshamella (Kirby, 1802)		common
panzeri Lepeletier, 1841		widespread
robertjeoitana Panzer, 1798 +	Rare (RDB3)	unknown
ruficornis (Linnaeus, 1758)		common
rufipes Fabricius, 1793		widespread
striata Fabricius, 1793		Castle Haven
EPEOLUS		
cruciger (Panzer, 1799)		scarce
variegatus (Linnaeus, 1758)		widespread
EUCERA		
longicornis (Linnaeus, 1758)	Nationally Scarce (Na)	rare
nigrescens Perez, +	Endangered (RDB1)	Extinct
ANTHOPHORA		
bimaculata (Panzer,1798)		common
furcata (Panzer, 1798)		scarce
plumipes (Pallas, 1772)		common
retusa (Linnaeus, 1758)	Endangered (RDB1)	Culver Down
MELECTA		
albifrons (Forster, 1771)		rare
APIDAE.		
BOMBUS		
barbutellus (Kirby, 1802) +		unknown
campestris (Panzer, 1800)		scarce

hortorum (Linnaeus, 1761)		common
humilis Illiger, 1806		Redcliff
jonellus (Kirby, 1802)		widespread
lapidarius (Linnaeus, 1758)		common
lucorum (Linnaeus, 1761)		common
pascuorum (Scopoli, 1763)		common
pratorum (Linnaeus, 1761)		common
ruderarius (Muller, 1776) *		unknown
rupestris (Fabricius, 1793)	Nationally Scarce (Nb)	Culver Down, Briddlesford woodlands
subterraneus (Linnaeus, 1758) +	Nationally Scarce (Na)	Extinct
sylvarum (Linnaeus, 1761) +	Nationally Scarce (Nb)	Extinct
sylvestris Lepeletier, 1833 +		unknown
terrestris (Linnaeus, 1758)		common
vestalis (Geoffroy in Fourcroy, 1785)		common

APIS

mellifera Linnaeus, 1758		common

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BATS (CHIROPTERA) 2004

Colin R. Pope

Twelve confirmed species were recorded in 2004. Thirty-seven house roosts were counted by bat group members and householders. Mist netting was again carried out by Ian Davidson-Watt in late July in Briddlesford Copses and, for the first time, in Chillingwood Copse, Havenstreet. This again proved very successful for rare woodland bats, yielding many more Bechstein's Bats, and their roost sites, and the first ever Island nursery roost for Barbastelle bats. The Bat Hospital, run by Graham and Donna Street, was again kept busy throughout the year dealing with 123 bats, the most ever.

[Greater Horseshoe Bat (*Rhinolophus ferrumequinum*)
No records this year. It was not present in Ventnor Tunnel, where it has been found in the past, when checked on 20th January and was not present in the usual Undercliff hibernaculum on 6 January (JW) or 20 January (JP).]

Daubenton's Bat (*M. daubentonii*)
On 1st May, the bat group were pleased to find a good number were feeding over the Eight Bells pond at Carisbrooke. Although this has proved a highly reliable site in the past, none were seen on visits in 2004.
The Bat Hospital received one male and one female, on different occasions, from Sandown and a female from Newport.

Whiskered/Brandt's Bat (*Myotis mystacinus* / *brandtii*)
A maximum of 40 were counted from a long-established house roost in Pallance Road, Northwood on 21 June (SC). The Bat Hospital received one male from Shanklin High Street, a female from Green Lane, Shanklin, and a female from Newport during the year.

Natterer's Bat (*M. nattereri*)
A search of natural rock cavities and crevices at Bonchurch Landslip was made by the Bat Group on 31st January, led by John Winch. Evidence of bat use was found and in one cavity, a hibernating Natterer's Bat was seen. It is likely that natural crevices right along the Undercliff provide suitable niches for small numbers of hibernating Natterer's Bats.
Individuals were caught in mist nets in Dunnage Copse, Briddlesford on 18th and 19th July (IDW). Both males and lactating females were involved. One male was caught in nearby Hurst Copse on 21st July. The Bat Hospital received a female from Freshwater.

Bechstein's Bat (*M. bechsteinii*)
IDW and JR had a most successful season of mist netting in Briddlesford Copses and Chillingwood Copse in July. A lactating female was caught in a mist net in Briddlesford Copse on 18th July. A total of one lactating female, two juvenile females, three adult males and two juvenile males were caught in mist nets set up in Hurst Copse, Briddlesford on 21st July, and two tree roosts were located in the wood. The bats were using woodpecker holes in ash trees.
An adult female, an adult male and a juvenile female were caught in mist nets in Chillingwood Copse, near Havenstreet, on 23rd July, again indicating a nearby tree roost.
A grounded female at Bouldnor on 1st July was treated by the Bat Hospital. Another, a male, was brought in to the Hospital from Totland in early September.

Noctule (*Nyctalus noctula*)
There was an unusual record of a female Merlin which was watched making repeated unsuccessful attempts to catch two Noctules flying in daylight at around 17.00 on 30th October over Brading Marshes (DH).

Noctules were recorded by the bat group on the RSPB reserve, between Bembridge windmill and Knowles Copse, on 3rd September.

Serotine (*Eptesicus serotinus*)
Just five roosts were monitored this year. The highest count was 59 on 15th June from a regularly monitored roost site in Havenstreet (C&JP). Meadow Cottage, Adgestone, which generally has the highest count, had a recorded maximum of 39 on 16th June (JR).
The Bat Hospital received one male and three females during the year.

Pipistrelle (*Pipistrellus pipistrellus* / *P. pygmaeus*)
Twenty-eight house roosts were monitored this year. The highest peak counts were recorded from roosts at Cranmore (262 on 25th June) and Marks Corner (127 on 16th June).
The bat group counted out 154 bats from the Ranges house at Porchfield on 16th August. Bats were emerging from access points on all sides of the building.
The Bat Hospital received 49 males and 40 females during the year.

Nathusius' Pipistrelle (*P. nathusii*)
Two records this year. A male was found clinging to the outside of the bird hide at Newtown in July (SY). Another male, in fine condition, was found clinging to a block of flats at the St Helen's end of Embankment Road on 18th November.

Brown Long-eared Bat (*Plecotus auritus*)
Four roosts were monitored this year. The maximum count, as usual, from a house at Brook Hill, was 22 on 6th June (MJ).
A lactating female was caught in a mist net in Chillingwood Copse on 23rd July (IDW).
The Bat Hospital received 3 males and 4 females during the year.

Grey Long-eared Bat (*P. austriacus*)
A remarkable total of 11 individuals were received by the Bat Hospital (GS). On 17th March, a female which had been hibernating in a shed due for demolition at Queen's Bower (JG) was treated by the Bat Hospital. During the spring, 2 males and a female were roosting in a courtyard at Brading Waxworks Museum. This seems to be a regular spring roost site for bats emerging from hibernation. A male was found at Chillerton, and another male at Wootton. Individual females were found at Calbourne, Brighstone, Thorley and Seaview. Another female was found outside Newport Library on 14th September.

Barbastelle (*Barbastella barbastellus*)
A male was caught in a mist net in Briddlesford Copse on 18th July and a lactating female in Dunnage Copse, Briddlesford, on 19th July. The female bat was radio tagged and tracked to a maternity roost in an ash tree in open woodland to the east of Woodhouse Farm. Fifteen bats were counted out the following evening between 21.20 and 21.35 from beneath loose bark. This is the first Barbastelle nursery roost located on the Island. It was an important find; only a handful of tree roosts have been located to date in this country (IDW, JR).

The Bat Hospital received a grounded female from a porch at Flower's Brook, Ventnor, on 4 January.

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MARINE MAMMAL REPORT 2004

Mike Cahill

There were a good number of sightings round the Island this year, but very many more off the Dorset coast between Swanage and Portland, where their sightings have increased.
We had two reports of dead whales. A Fin Whale, *Balaenoptera physalus*, was seen floating in the Solent in August. This animal was towed and beached at Lee-on Solent by Coastguards. More Fin Whales have been reported in the English Channel in recent years and it has been suggested, that some may now be using this route during migration to or from their summer feeding grounds off the Norwegian coast.
The other was stranded at Steephill Cove, Ventnor, in December, very decomposed and thought to be a Minke Whale, *Balaenoptera acutorostrata*.
Other sightings included: Grey Seal, *Halichoerus grypus,* Common Seal, *Phoca vitulina*, Bottlenose Dolphin, *Tursiops truncates* and Harbour Porpoise, *Phocoena phocoena*.

A full list of sightings is attached in Table 1.

Acknowledgments Our thanks to all who have submitted sightings for this year`s report.

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26-Jun		SCHEDULE 1						
DATE	**TIME**	**SPECIES**	**TOTAL**	**D**	**Ds**	**LOCATION**	**NOTES**	**Obs/Recorded**
Feb		Harbour Porpoise	1			Chilton Chine	"Stranded, dead, 200m W of steps, 1.4m long"	Obs-H.Underwood. Rec-
Feb		Seal	1			Ventnor Bay		A.Butler
04-Feb		Harbour Porpoise	1			Sudmore Point	"Stranded, dead"	"Obs-M.Green, Rec-J.Winch"
10-Feb		Common Seal	1			Western Yar	"Feeding on Bass, caught 3."	"Obs-C.Burland, Rec- C.Pope"
12-Feb		Harbour Porpoise	1			Chilton Chine	"Stranded, dead, decomposing"	S. Young via W.W.
19-Feb		Harbour Porpoise	1			"Woody Bay, St Lawrence"	"Stranded, dead, decomposing"	Coastguard via W.W.
6-Mar		Harbour Porpoise	2		1.5km	SE Dunnose Pt	Heading SW	G.Blake
16-Mar		Cetacean	1			Compton Chine	SZ366854 Tail/Fluke/L.Flipper/Fnt of Head missing	M.Cotterill
11-Apr	eve	Seal	1			W.Yar	Hauled out onto sand bank	M.Horefield
May		Seal	1			Alum Bay	Swimming	I.Watkins via W.W.
1-May		Bottlenose Dolphin	7	W	1.5km	NW. of Collwell Bay	"Leaping & breaching, seabirds o/head. 300 of Hurst"	Dorset Marine Conservation Officer
17-May	1500	Cetacean	9		3km	off Totland Bay		I.Watkins via W.W.
18-May		Seal	1			off Fort Victoria	Swimming	Island Sailing Club via W.W.
25-May		Porpoise	1			off Ventnor	Swimming	Mrs Blake (snr)
June		Bottlenose Dolphin	2		1.5km	off Sudmore Pt		M.Green
23-Jun		Bottlenose Dolphin	1	W	1.5km	East of Cowes	Playing round yacht and moving slowly west.	Anon via W.W.
26-Jun	1230	Dolphin	1			Eastern Solent	fin seen	Phone call to Wight Wildlife
27-Jun	1200	Bottlenose Dolphin	1			North West of Cowes	Accompanied Yacht	A Hawkins via W.W.
10-Jul		Seal	1			Solent NE.Cowes	off Lee-on-Solent near Windsurfers	Dorset Marine Conservation Officer
12-Jul		Dolphin	8+			N of Yarmouth	seen from boat	M Green
12-Jul	1430	Dolphin	1		2km	North of Cowes	Swimming South	Mate of Red Funnel Ferry via W.W.
14-Jul		Bottlenose Dolphin	4			Entrance to Solent	seen from yacht by Northern Channel Buoy	Dorset Marine Conservation Officer
26-Jul	am	Dolphin	5+	E	1km	off Bembridge	seen off Lifeboat Stn	M.Whitaker
2-Aug	1600	Whale	1		1.5km	NW of Gurnard Bay	"Fin, dead.landed later by Coastguards at Lee on Solent"	V.Gwynn
2-Aug		Whales	2+			Solent	Approaching Solent from West	V.Gwynn
1-Sep	1200	Grey Seal	1			off Yarmouth	swimming	Mr Webb via W W
2-Sep	1630	Seal	3			off Grange Chine	Swimming and fishing off beach	Phone call to Wight Wildlife
16-Nov	1600	Grey Seal	1			Newtown Creek	"Seen from yacht, swimming and fishing"	Phone call to Wight Wildlife
Dec		Bottlenose Dolphin	6			off Culver	seen by fishermen	IOW County Press
Dec		Bottlenose Dolphin	2			off Culver	seen by fishermen	IOW County Press
7-Dec		Common Seal	1			Osborne Bay	SZ52531950 hauled out on rocks at low tide	D.Biggs
9-Dec		Common Seal	1			off Barton Hard	SZ52535948	D.Biggs
18-Dec		Whale	1			Steephill Cove	"Stranded, dead, partly decomposed"	C Blake
26-Dec	1630	Common Seal	4			Osborne Bay	"inc 1 juvenile, swimming and hauling out"	T.Redfern via W.W.
2004		Seal	2			off St Catherine`s Point	Swimming	Mr White via W.W.

Notes

D = direction animals heading

Ds = distance from shore in metres

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THE ANGLO-SAXON CHARTER BOUNDS OF THE ISLE OF WIGHT PART 1: THE WEST MEDINE

John Margham

Abstract

This paper is the first of a two-part study of the Anglo-Saxon charter bounds of the Isle of Wight. The aims of the study are outlined, being primarily the reconstruction of the landscape in the later Anglo-Saxon period. A catalogue of charters relating to the Isle of Wight is provided and charters with reliable topographical information selected for study. Charters defining estates in the western half of the Island are examined: Ningwood, Atherfield, Watchingwell and Calbourne. The charter bounds are located in the modern landscape, inferences made about the Anglo-Saxon landscape, and bounds related to Domesday manors. The study of Calbourne concludes with an analysis of links between estates in mainland England and the Isle of Wight. A further paper will examine the charter bounds and landscape of the eastern half of the Island and will relate the charter evidence to a wider picture of the landscape in the later Anglo-Saxon period.

Introduction

Before the advent of maps, an area of land making up an estate was often defined by a description of the topographical features along its boundary. This was common practice in the Anglo-Saxon period, particularly in the tenth and eleventh centuries. A charter documented a grant of land, or a confirmation of a grant, which was issued by the king and witnessed by the leading men of the realm. It was usually a Latin document to which was appended a boundary clause written in Old English. The boundary clauses of pre-Conquest land charters provide contemporary evidence for features in the landscape of Anglo-Saxon England. The Isle of Wight is fortunate in having ten sets of such Old English charter bounds. These form the basis of this study of the later Anglo-Saxon landscape of the Island.

The aims of the study are as follows:

1. To publish the Old English texts of all the charter boundary clauses relating to the Isle of Wight and to provide accurate modern English translations made by the author with assistance from Dr Margaret Gelling;
2. To define Anglo-Saxon estates in the modern landscape through identifying the boundary features mentioned in charter boundary clauses wherever possible;
3. To use the boundary clauses of charters as evidence for the appearance of the landscape of each estate in the later Anglo-Saxon period;
4. To relate the areas of later Anglo-Saxon estates to the manors of Domesday Book, and
5. To examine connections between mainland estates and estates on the Isle of Wight from the evidence of Anglo-Saxon charters and Domesday Book.

The present paper will present the evidence for the western half of the Isle of Wight (S 543, ECW 103, S 766, S 274, S 1581)[11]. A further paper will examine the charter bounds and their interpretation for the eastern half of the Island (S 1662, S 1663, S 842, S 1391). This second paper will be concluded with a discussion of the wider landscape of the Isle of Wight in the later Saxon period.

The Study of the Isle of Wight Charter Bounds

The charter bounds of the Isle of Wight have been studied by various researchers for over eighty years. Grundy (1921;1926) examined several boundary clauses relating to the Island in his work on the charters of Hampshire. Kökeritz (1940) published most of the relevant Old English boundary clauses in *The Place-Names of the Isle of Wight*, developing the interpretive work of Grundy. Forsburg

(1950,209-10) published his own interpretation of one of the charters in the Bathingbourne area. Finberg (1964) also commented on the various charters relating to the Isle of Wight in *The Early Charters of Wessex*. Some of Kökeritz's interpretations of the locations of boundary markers were mapped by Arnold (1975) in his undergraduate dissertation. Other studies such as Cahill (1980) and Sewell (2000) have drawn on previous research. The present author has produced studies of individual charters (Margham 2000,119-120; forthcoming) and has used the bounds and their interpretation in reconstructing the Isle of Wight landscape in the later Anglo-Saxon period (Margham 2003). The latter study includes an analysis of the productivity of different types of landscape.

Identification of features in the modern landscape which are referred to in documents originating before the Norman Conquest is a fascinating occupation, involving documentary research, map work and field work. The presentation of the results of such research can however give a false sense of being definitive. Once a set of charter bounds are published with identifications in the modern landscape and maps produced, the 'solution' tends to take on a life of its own. These sentiments have been admirably summarised by Brooks:

> "Tracing the boundaries of an Anglo-Saxon charter on the modern map and on the ground is one of the most rewarding forms of research. The excitement of discovering how a particular landscape has changed or remained the same over a thousand years cannot easily be equalled. But it is difficult to present the results of such work without suppressing the uncertainties and difficulties that remain" (Brooks 1982,196, quoted by Klingelhöfer 1992,27).

The interpretations of the location of Anglo-Saxon boundary features in the modern landscape in this study are not presented as being definitive. Just as the research presented here has built upon the work of Kökeritz, further work on the place-names, topography and historical geography of the Isle of Wight may very well refine some of these interpretations[22].

The Reliability of Charter Bounds

Anglo-Saxon charters are usually referred to through the numbers given by Sawyer (1968) in his *Anglo-Saxon Charters: an annotated list and bibliography*. This convention has been followed for this study; reference has been made above to this system of indexing, S 543, S 766 *etc*. Sawyer's indexing relates to extant documents[33]. The exception to this are references to 'lost' charters, which although no longer in existence are referred to in later secondary sources. In this study these are referenced through the numbers given by Finberg (1964) in *The Early Charters of Wessex*, for example ECW 103. A complete list of Anglo-Saxon land charters relating to lands on the Isle of Wight is given in Table 1 using these reference numbers.

Information about the reliability of individual charters is presented below where appropriate. The present study excludes charters pre-dating 900 AD, although it does include S 274, purportedly dating from 826, but more likely to date from the tenth century (below). With the possible exception of S 274, none of the charters pre-dating the tenth century had bounds appended. The absence of a boundary clause may not prevent the reconstruction of an estate. An interpretation of ECW 1 has been published in a previous paper by the author (Margham 2000,119-120) and it is quite possible that the estate at Arreton listed in King Alfred's will was coterminous with the later manor (Hockey 1991, map 3). In the present study, two estates are included which do not have boundary clauses, but can be reconstructed using other evidence. ECW 103 (Atherfield) is a lost charter referred to in a secondary source, and S 1391 (Wroxall) is an exchange of two properties where the bounds are not defined.

Most extant charters are copies of the original documents, having been reproduced by scribes working in cathedral and monastic libraries (Hooke 1994,3). All the charters relating to the Isle of Wight are later copies. The copying of charters provided scope for altering documents deliberately, and the possibility that transcriptual errors may be made. Forgery of documents usually involved the dates

claimed for documents and the witnesses involved (Hooke 1994,3). S 274 and S 281 are examples of this (Edwards 1988,155-6). The bounds themselves, however, are normally of authentic pre-conquest origin, but may occasionally be later additions to an earlier grant (*ibid*.). There is nothing to suggest that the bounds relating to the Isle of Wight are later additions, but in the bounds of Bathingbourne in S 1662 and *Meolocdune* (Ashey) in S 842 there is evidence for transcriptual errors.

Lost Charters and Bookland

The charters listed in Table 1 are not a complete record of all the charters that were produced during the Anglo-Saxon era concerning lands on the Isle of Wight. Reference has been made to ECW 1 and ECW 103, neither of which are extant documents but are referred to in *Annales Monasterii de Wintonia*, a compilation dating from *c*. 1300 (Luard 1865). ECW 4 was also recorded in the same source. In addition to these lost charters, there is evidence that at least one other charter formerly existed documenting a grant of land on the Isle of Wight. A medieval place-name of *Bockland* referred to a location in the Ryde area (Hockey 1982,67) and in 1337-8 Robert de Bokland was farming the demesne of Ashey. Although Old English *boc* can mean 'beech' (Sweet 1896,26), the first element in the place-name *Bockland* is almost certainly derived from OE *boc* meaning 'book, charter' (Mills 1991,379). *Bockland* thus means 'estate created by an Anglo-Saxon royal diploma' or 'estate granted by charter' (Rumble 1987,227). The Ryde area would have been granted by a charter before the Norman conquest, but apart from this place-name, there is no other evidence for such a transaction. It is however very likely that other areas of land were granted by charter in the Anglo-Saxon period (*ie.* 'bookland'), for which no documentary or place-name record now exists. A possible example of this is the manor of Hide in Brading parish, first recorded in 1287-90 as *la Hyde* (Kökeritz 1940,56), the name relating to an area of land, which may very well have been granted in a pre-conquest charter.

The amount of land that had been granted by charter before the Conquest was therefore more extensive than the documentary sources that are available to us suggest. It is however uncertain exactly how much land was regarded as *boc-land*. This was a type of landholding which had a great significance by the later Anglo-Saxon period: "It seems clear that by the early tenth century land in England was held either as *folc-land* or *boc-land*: it was held either in accordance with the obligations of generally accepted folk-custom or by the special terms inscribed in a royal *boc* or diploma" (Rumble 1987,220). 'Folkland' was really a type of royal land, being held in life tenure and owing dues to the king. It had not been alienated from royal lands by the granting of a charter. It could, however, in due course be granted to a theign. In the words of King Alfred:

> "Every man, when he has built a village on land leased to him by his lord [ie. the king], with his help, likes to stay in it sometimes, and to go hunting and fowling and fishing, and to support himself in every way on that leased land, both on sea and land, until the time when through his lord's mercy he may acquire bookland and a perpetual inheritance" (Finberg 1964,191, quoting Whitelock 1955,844).

Royal estates of the late Anglo-Saxon period were not 'bookland' as they had not been granted by the king to individuals or institutions. In addition to 'folkland', royal estates can be regarded as belonging to one of two other categories (Klingelhöfer 1992,36-37). Firstly, there were the royal demesne lands, which were held directly by the king. Secondly, there were the personal lands of the royal family, which were inherited and bequeathed. S 1507, the will of King Alfred, is an example of a document listing some of this type of royal land, which included the estates of Arreton and possibly Wellow[44].

'Bookland' was therefore part of a continuum of different types of land ownership and land holding in later Anglo-Saxon England. With the exception of the estates on the Isle of Wight mentioned in King Alfred's will (S 1507), all the charters relating to lands on the Isle of Wight can be regarded as 'bookland'.

The Charter Bounds of the West Medine

The Ningwood Charter, S 543

This was a grant made in 949 by King Eadred, King of the English and ruler of the other peoples round about, to his man Ælfsige, for his services as goldsmith and silversmith. It consisted of 1 *mansa* in *Vexta insula* [the Isle of Wight] and 1 at *Winterburnan* [Winterborne, Wiltshire] in the land of the Gewisse, and was free of all but the three common dues[55] (Finberg 1964,no.70).

The bounds of S 543

þis his þæs hiwisces land gemæro þe þær to hyrþ on whit. fram hyrste 7lang slades to wullafes hlipan. þonon 7lang lanan to beorhtnaþes stáne. of þam stane 7lang lanan to þæs móres heafde ðonon 7lang slades ut on scós fleot þonne 7lang streames ut on scealdan fleot. þonnen 7lang scealdan fleotes up to hyrste. (Kökeritz 1940,207).

'These are the boundaries of the hide which belongs to it[66] on the Isle of Wight. From the wooded hill along the slade to Wullaf's leap thence along the lane to Beorhtnoth's stone. From that stone along the lane to the end of the marsh thence along the slade out to the shoe fleet then along the river out to the shallow fleet up to the wooded hill'.

Identifying the Bounds (Fig 1)

The bounds of S 543 on the Isle of Wight have been discussed by Kökeritz (1940,207) but were omitted from Grundy's work on Hampshire charter bounds. Arnold (1975) has plotted the bounds, based upon the interpretation of Kökeritz. The estate on the Isle of Wight is not named in the charter. Page (1912,220) identified it with Watchingwell, but as Kökeritz has pointed out, the reference to *7lang scealdan fleotes up to hyrst* strongly suggests that the estate was located in the area to the south and west of Shalfleet. Kökeritz has suggested that the *unam mansam in Vexta insula* can be identified with the one hide of Ningwood which was held by Gerin in 1086.

Kökeritz's identification of the bounds (which were plotted by Arnold) are as follows: hyrst, unlocated, but near Shalfleet; *7langes slades* as far as *wullafes hlipan* the lower course of the Caul Bourne;the second *lanan* either the Newbridge/Wellow road or "the minor road just to the north of Dodpits" (ie. Warlands Lane), *þæs móres heafd*e "may have been at Ningwood Farm", the second *slades* the watercourse running northwards from just west of Ningwood Farm into Ningwood Lake, following the creek into Western Haven, and then turning southwards up Shalfleet Lake to *hyrst.*

The present study has identified the bounds more precisely and has resulted in a reconstruction consisting only of the Ningwood area, thus excluding Shalfleet and the Caul Bourne. This reconstruction is partially dependent upon the interpretation of the word *slades,* which occurs twice in the bounds of S 543. A study of the minor place-names and field-names of the Isle of Wight indicates that a slade can be defined as a very shallow valley which may or may not have a water course[77]. This is supported by Field, "A *slade* is a shallow valley, a piece of greensward in a long depression in the fields, too marshy to cultivate" (Field 1993,47). The lower valley of the Caul Bourne is much more substantial than a slade and has a permanent watercourse. If it were to form part of the bounds in S 543 it would have been referred to specifically as *Cawelburnan,* as in the bounds of S 274.

Hyrste, the starting point of the bounds, can be identified with the small hill overlooking the Western Haven and just to the north of Woodslade Coppice, which was named Park Hills in the Shalfleet parish tithe apportionment of 1844 (IWCRO JER/T/294). The *slade* is the short shallow valley running up from the creek in a south-easterly direction, appropriately occupied by Woodslade Coppice. This brings the line of the bounds to the vicinity of the Shalfleet to Yarmouth road to the north of Warlands. *Wullafes hlipan* may refer to this road or a location nearby, a place which was leapt over

at one time. The natural topography of the area would exclude a 'leap' involving prominent rocks, but a deer leap is a possibility (below). Warlands itself would appear to have been named after Waleran, the son of Henry Trenchard, lord of Shalfleet, after the former had granted a house in *Hiestningewede* (East Ningwood) to Carisbrooke Priory, 1230x1240 (Hockey 1981,no.181). This property was refered to as a *capital messuage called Waleron Trenchards* in 1617 (Mills 1996,104). The thirteenth century document in the Carisbrooke cartulary therefore identifies Warlands as being within East Ningwood. The *lanan* in the bounds of S 543 would have formed the eastern boundary of Ningwood: land to the east of Warlands Farm and south of Shalfleet church was glebe in the mid nineteenth century, so would appear to have been formerly part of Shalfleet, rather than Ningwood. The north end of the *lanan* can thus be identified with the road south to Warlands farm. The continuation of this lane for more than 200 metres south of the farm is not supported by maps from the tithe apportionment onwards. However, the six-inch scale working drawings of the Ordnance Survey of c.1800 show a lane running southwards over at least three quarters of the distance between Warlands farm and Newbridge. This route, from the Shalfleet/Yarmouth road to Newbridge can be identified with the first *lanan* in the bounds of S 543. *Beorhtnaþes stáne* can be located at the southern end of this lane, in the upper part of the present-day village of Newbridge. From this point the road in the modern landscape runs westwards towards Wellow. This is the second lane in the bounds of S 543. The road crosses a small watercourse on the western side of a cottage called Stoneovers (Stonewell on the 1866 six-inch Ordnance Survey map). This location, now arable farmland, would have been 'the end of the marsh' (*þæs móres heafde*). The very shallow valley running north-westwards from this point can be identified with the upper course of *slades,* with the bounds following this valley to the west of Ningwood Farm. The watercourse has been diverted through a drainage ditch along the eastern side of the slade at a date prior to 1866, rejoining its original alignment just south of Ningwood Farm, on crossing the Ningwood to Wellow road. From adjoining Ningwood Farm, the watercourse runs northward and into the narrow estuary of Ningwood Lake (*scós fleot*). The bounds followed the widening estuary in a north-easterly direction, to a point where it is now known as the Western Haven. This can be identified with *scealdan fleot,* 'the shallow fleet'. This is an apt description of the Western Haven as well as the fleet now known as Shalfleet Lake further to the east. *Hyrste* (Park Hills), the starting point of the bounds, is a short distance above the Western Haven.

The Anglo-Saxon Landscape of Ningwood

Some of the items in the bounds of S 543 provide information about the tenth century landscape of the area. *Hyrste* is best translated as 'wooded hill' (Gelling 1984,197-8). Although the small hill here is no longer wooded, the nearby slade (Woodslade Coppice) is. The mention of *Wullafes hlipan* in the vicinity of the present-day Shalfleet to Yarmouth road raises the possibility that there was a deer leap here. There was certainly a deer-park in the Shalfleet area by the later thirteenth century, for in 1298 Henry Trenchard complained that Amice, Countess of Devon, and her men "... drove off deer from his park at Shalfleet" (Page 1912,272). The site identified as *hyrste*, a little to the north of *Wullafes hlipan*, was referred to as Park Hills in 1844 and Park Hill in an estate map of 1774, implying that the Medieval deer park was in this immediate area (Basford 1989,16). Hooke discusses the Old English term *haga* which in rural areas seems "... to have been an enclosure directly linked with the reservation of land for the preservation and hunting of game" (1989,126-7). Whilst a *haga* is not mentioned in the bounds of Ningwood, it does raise the possibility that the deer-park here had a late Anglo-Saxon precursor[88]. The second instance of *lanan* attests to the presence of the lane running westwards from the Caul Bourne towards Wellow in the tenth century. This road is approximately on the northern limit of the Thorley/Wellow Bembridge Limestone area, a significant area of lighter soils within a landscape otherwise dominated by wetter clayland soils. The reconstruction of the bounds locate 'the end of the marsh' on or near this geological boundary. It is improbable that the free-draining

Bembridge limestone to the south of the road supported a vegetation which could be described as *mor*. It would thus appear that the habitat referred to was within the slade running north-westwards away from the road. This is consistent with the interpretation of *mor* as 'low-lying wetland' in lowland areas of England (Gelling and Cole 2000,58-9)[99].

S 543 and Domesday Book

The reconstruction of the bounds of S 543 encompass the whole of the Ningwood area. The one 'mansa' granted by Eadred to *Ælfsige* in 949 can be identified with the one hide of *Lenimcode* (Ningwood) in Domesday Book:

> "Gerin has 1 hide in NINGWOOD. King Edward had it in his revenue. Then and now [it answered] for 1 hide..."
> (Munby 1982,54a).

It is quite likely that Ningwood belonged to the royal manor of Breamore in the later eleventh century (Munby 1982,39a and note 1,37):

> "BREAMORE belongs to the above manor [ROCKBOURNE] which the King holds and King Edward held ..... To this manor belongs 1 hide on the Isle of Wight which Gervi holds;£9 came into the King's revenue from there and a priest had 20s ...."

Munby has pointed out the discrepancy between the value of Ningwood (£6) and the detached portion of Breamore on the Island (£9 and 20s). However, the reference to a priest adds weight to the identification of Ningwood with this hide on the Isle of Wight. The now lost place-name of *Preston* was first recorded as *Ningewode cum Prestetone* 1151x1155 (Bearman 1994,82-3). *Preston*, 'the priests' *tun*', would appear to refer to a small area of land or settlement held by a priest or priests[1010].

The Atherfield Charter, ECW 103

This is a lost charter of King Edgar (959x975) granting lands to the church at Winchester consisting of 2 hides at *Aderingefeldam* (Atherfield). The only record of the former existence of this charter is in a list of Edgar's gifts of land to Winchester recorded in the Annals of Winchester:

> *His ita factis, rex Edgarus novum monasterium ampliavit possessionibus; et Wintoniensi ecclesiae dedit manerium quod dictur Awintona* [Avington], *et apud Itinstokam* [Itchenstoke] *x. hidas, et apud Madanlegam* [Madingley] *iii. hidas, et apud Breodunam* [Bredon] *xiii. hidas, et apud Aderingefeldam ii. hidas, et apud Thucam vii. hidas* (Luard 1865,12).

Aderingefeldam can be identified as Atherfield, Domesday *Avrefel* and *Egrafel*, being derived from **Æþelheringa-feld,* 'the open land of *Æþelhere*'s people' (Kökeritz 1940,217).

Reconstruction of the bounds

Although there are no Old English bounds extant for Atherfield, a plausible reconstruction of the bounds of the two hides can be made from later evidence (Fig 2). There were three detached portions of Brighstone parish within Shorwell parish in the nineteenth century. These encompassed a total area of 260 acres and had one feature in common. They all abutted the southern side of a small watercourse, which runs westwards to Shepherd's Chine. In addition, the north-eastern boundary of the largest of these areas (Atherfield Farm) follows a tributary of this watercourse. It is very likely that the estate of two hides at Atherfield was the area bounded on the north by this watercourse and on the eastern

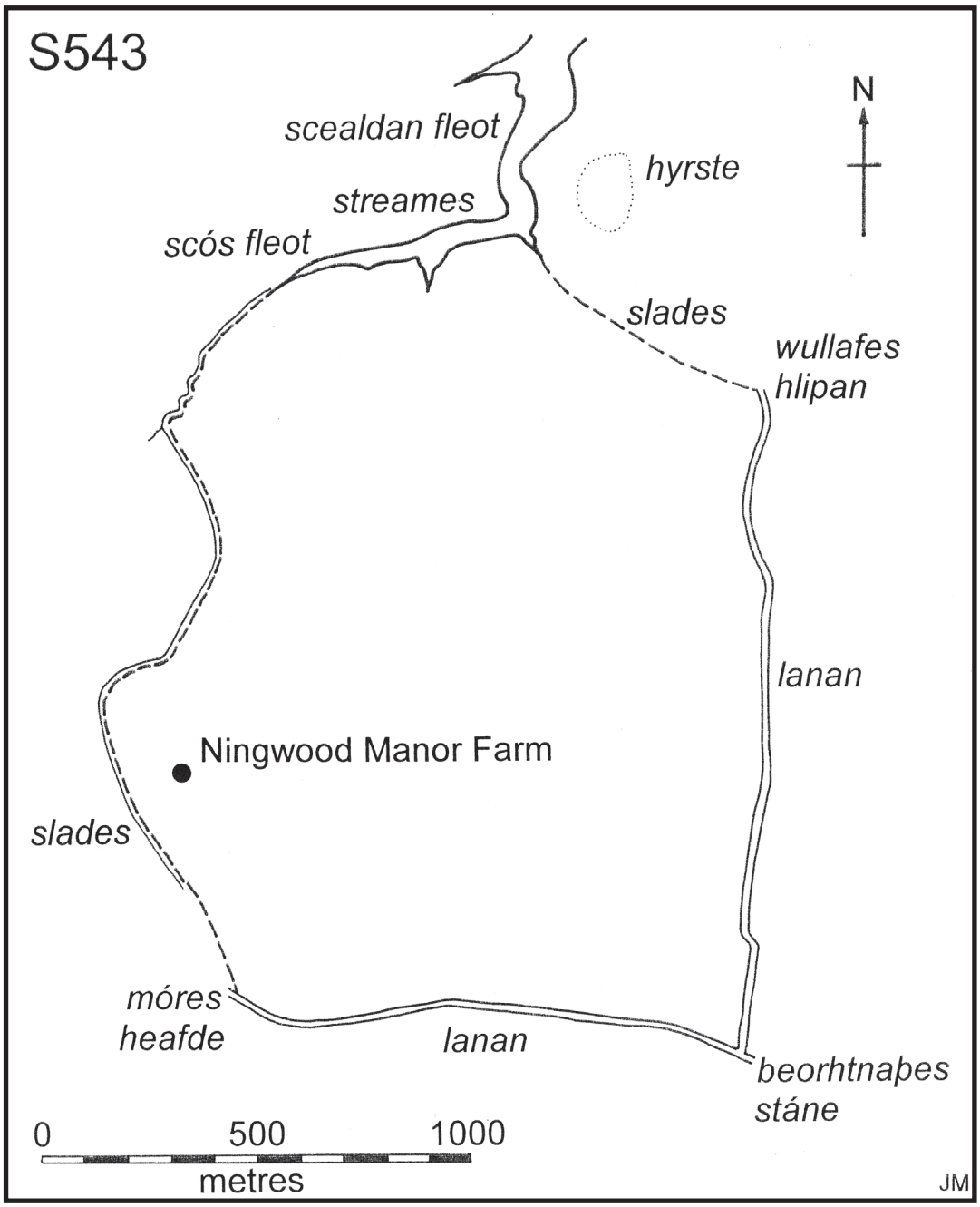

Fig. 1: S 543, grant of 1 *manse* in *Vexta insula* by King Eadred to Ælfsige, his gold and silversmith, 949AD.

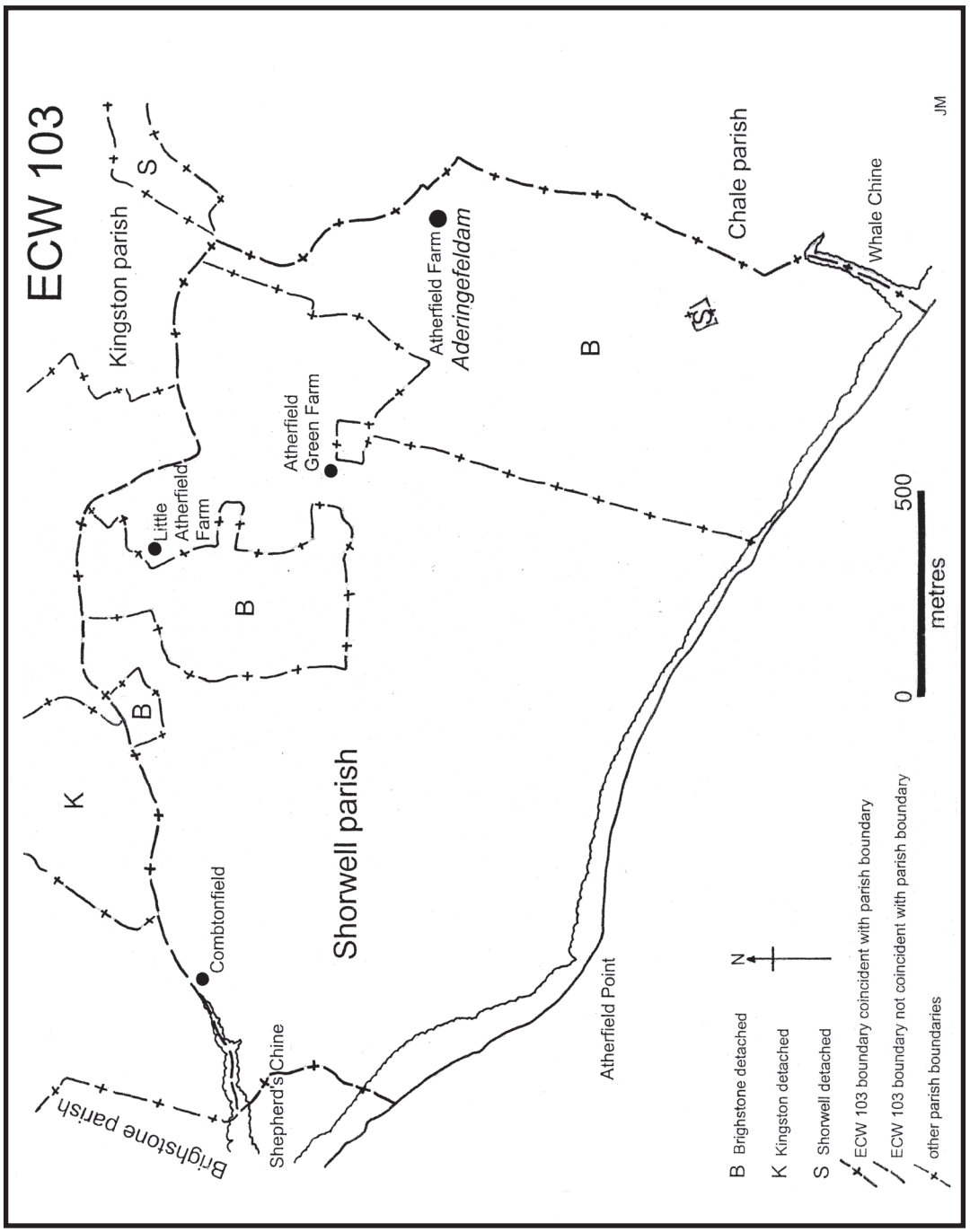

Fig. 2: ECW 103, lost charter of King Edgar, grant of 2 hides at Atherfield to the church at Winchester, 959 x 975 AD. Medieval parish boundaries are shown.

side by the Chale parish boundary. All Atherfield place-names are within this area: Atherfield Farm, Atherfield Green, Little Atherfield and Atherfield Point. This reconstruction is partially supported by the evidence of the tithe apportionment maps and schedules for the area (Brighstone, Shorwell and Kingston). The areas of Atherfield Farm and Atherfield Green Farm repected this watercourse, Combton Fields, a post conquest place-name derived from the Compton family of Freshwater parish, also respected this watercourse with the exception of two small parcels of land adjoining the settlement site on the north side of the stream. The only one of the four farms which did not respect this watercourse as a property boundary in the mid nineteenth century was Little Atherfield Farm, with lands either side of the stream (IWCRO JER/T/309,310).

The eastern boundary of this reconstructed pre-conquest estate of Atherfield later became the parish boundary between Chale and the largest detached portion of Brighstone parish, which was coterminous with Atherfield Farm in the nineteenth century. This boundary reaches the sea at Whale Chine. This mirrors the westernmost part of the reconstructed boundary at Shepherd's Chine, which was referred to as *Eadgylses muþan* in the bounds of S 274. Further west, Chilton Chine can be identified as having formed part of the bounds of Calbourne, as well as being on the parish boundary between Mottistone and Brighstone. The identification of Whale Chine as a point on the bounds of an Anglo-Saxon estate reinforces the significance of chines as boundary markers along the south-eastern coast of the Isle of Wight.

ECW 103 and Domesday Book

By 1066, most, if not all of the Atherfield area, would appear to have lost any connection with the church of Winchester. Atherfield is itemised twice in Domesday Book:

> "The King also holds three manors, ATHERFIELD [*Avrefel*], DUNGEWOOD and WALPAN. Three thanes held them. Then [they answered] for 3 hides; now for 1 hide ...." (Munby 1982,52c).

> "William [son of Stur] also holds ½ hide in ATHERFIELD [*Egrafel*]. Travers holds it from William. Wulfgeat held it jointly. Then and now it answered for ½ hide ...." (ibid.,52d).

It is however possible that perhaps half a hide was still held by Winchester and that this area of land was enumerated in the Domesday entry for Calbourne (Swainston). The detached portions of Brighstone parish in the Atherfield area owe their origin to the grant of Atherfield to Winchester in the tenth century. Their configuration in the nineteenth century when recorded on the Ordnance Survey six-inch map of 1862 may have some relationship to the tenurial situation at Domesday. The larger of the two areas of Brighstone detached, which encompassed a combined area of 256 acres, were both worked from Atherfield Farm in 1838 (IWCRO JER/T/45) and may possibly reflect the retention of these areas by Winchester at the time of Domesday. If this is the case, however, Atherfield Farm can not be identified with either of the two Domesday place-names of the area. Alternatively, Atherfield Farm can be identified with *Egrafel* or *Avrefel* and that this property retained an ecclesiastical connection with Winchester via Calbourne or Brighstone church despite having no tenurial connection with Winchester.

The Watchingwell Charter, S 766

This charter dates from 968, being issued by Edgar, king of the English, ruler of the Northumbrians and the heathen and British peoples, to the nuns of Wilton. It was a confirmation of their title to the estates which he had formerly granted to *Wulfthryth*. It consisted of land at South Newton, Sherrington, Deverill, Baverstock and *Frustfield* [all in Wiltshire], and *Hwæting* (Watchingwell), and was free but for the three common dues (Finberg 1964,no.108).

The bounds of S 766

hwætincg le þis synt þare x. hida land gemære to hwætincg le þehyrað in to niwantune. Ærest of þære sæ 7lang stiðes fleotes heafod. of þã heafde on þa ge clyppedan treowa of ðà treowan on heort lege. þ'ón þa wylle þ'ón þa ræwe on ðane haliganstan. þanon on þære ealdan heort heges ræwe ón mot beorh. þanon on hrecescumbes heafde on þane lim pyt. þañ ón hrece leage middeweardre. þonò on æsc stede. of æsc stede þ'eft on þa sæ. (Kökeritz 1940,90).

'These are the boundaries of the ten hide estate of Watchingwell which belongs to [South] Newton[1111]. Starting from the sea along the head of the stiff/firm fleet (or creek of a man named *Stith*). From that head to the named (or embraced) tree, from the tree to the hart [wood?] pasture. Then to the spring (or stream), then to the hedgerow to the holy stone. Thence to the old hart hedgerow to the moot mound (or hill). Thence to the head of the valley of the stack to the lime pit. Then to the middle of the stack [wood?] pasture. Thence to the place of ash trees then returning to the sea'.

The second word in the heading of the Old English bounds, *h*wæ*tincg le*, would appear to represent the word *leah* 'forest, wood, glade, clearing' (Gelling 1984,198-207). "*Hwætinc(g)* 'the wheat place' seems originally to have been the name of the district, to which *wella* 'spring, stream', and earlier *leah* 'woodland clearing', were added (Mills 1996,105).

Identifying the Bounds (Fig 3)

The bounds of S 766 have been discussed by Kökeritz (1940,90-91), and his interpretation was plotted by Arnold (1975).

The starting point of S766 has been identified by Kökeritz: "..the *fleot* is the mouth of the little river to the west of Sticelett, which here forms an estuary...The *heafod* must refer to the upper course of the river, which the boundary followed probably as far as modern Rolls Bridge...". The former extent of this estuary is indicated on the 1:50,000 geological map (1976, drift edition), which indicates that the southernmost limit of alluvial deposits is at Rolls Bridge. The next point on the bounds was *þa geclyppedan treowa*. This was interpreted by Kökeritz as 'clipped, trimmed or polled tree', but Gelling prefers 'named tree' or 'embraced tree', and if the latter perhaps referring to ivy (personal communication). This tree obviously can not be located in the modern landscape but the boundary to the south of Rolls Bridge may be related to a former boundary recorded as an earthwork on military photographs of the 1940s (Luftwaffe GX 10113 SG/159 (16/8/43); RAF 106G/UK 1665 4181 (4/7/46), held by IWCAC). This former boundary ran south-south-west in the area to the west of Stagwell Farm, parallel to and to the east of the stream flowing down to Rolls Bridge. This boundary has been reinstated since the 1940s as it is a hedgerow in the present day landscape. The place-name Stagwell is of significance. It was first recorded as a field-name in 1608 (*Stackell*), and would appear to have been derived from OE *staca* and *wella*, 'the spring or stream marked by a boundary post' (Mills 1996,97). The actual line of the bounds of S 766 would have been some 160 metres to the east of the stream in the Stagwell area, and did not follow the stream as the stream was not mentioned in the bounds at this point. The stream referred to in the place-name may have been a tributary stream which the bounds crossed, somewhere in the vicinity of *ge clyppedan treowa*. The next feature on the bounds of S 766 was *heort lege,* 'the hart pasture', which would appear to have been ajoining the former/modern field boundary to the west of Stagwell Farm. This is an appropriate name for an area of pasture located just beyond the later bounds of Parkhurst Forest. Whilst *lege*, the dative of *leah*, can be taken to have its latest sense of 'pasture' (personal communication, Margaret Gelling), it may refer to an area of wood-pasture. As Della Hooke has pointed out, the association of *leah* with wood-pasture would account for the apparent changes of meaning of this term, ranging from woodland to pasture (Hooke 1981,154). Wood-pasture, just to the west of the area which was to become known as

the King's Forest at Domesday, is a distinct possibility. *þa wylle*, the West Saxon form of *well, wella, welle,* 'spring or stream' (Gelling 1984,30), refers to the upper course of the small stream already mentioned above, probably on the parish boundary between Northwood and extra parochial Parkhurst Forest. The next boundary mark, *ðane haliganstan* 'the holy stone', cannot be located exactly. The 'stone' marked on the 25 inch Ordnance Survey map of 1908 on the Carisbrooke/Parkhurst Forest extra parochial area boundary, just to the west of the stream, would appear to have been a forest boundary stone of an eighteenth century date, which is no longer extant (field visit March 1997). *þære ealdan heort heges ræwe* 'the old hart hedgerow', is likely to be the hedgerow running south-west from the boundary of Parkhurst Forest towards Whitehouse Farm, which forms the Northwood/Carisbrooke parish boundary. This hedgerow is also on the line of the pre-enclosure boundary of Parkhurst Forest when mapped in 1770 (Chatters 1993,map 2). *mot beorh*, 'moot mound (or hill)', would appear to be the hill at Bunts Hill Farm, as suggested by Kökeritz. The summit of this hill is to the north-west of Whitehouse Farm, 150 metres from the point where the Northwood/Carisbrooke/Shalfleet detached parish boundaries meet. These boundaries meet on the southern side of Bunts Hill.

Kökeritz (1940,91) claimed that "Both *hrecescumbes heafde* and *hrece leage* refer to the district round Rodge Brook". A much more satisfactory resolution of these two boundary locations is that they refer to an area much further to the south (below). This in turn implies that the bounds of S 766 must have followed an almost straight course until *hrecescumbes heafde* was reached. This is consistent with the almost linear nature of the Shalfleet detached/Carisbrooke parish boundary to the south of Bunts Hill, once an allowance has been made for the area west of Yongwoods Farm as having been formerly part of the Watchingwell estate. The parish boundary makes a detour to the west in the Youngwoods Farm area, before rejoining its former alignment. It would appear that the parish boundary in this area reflects the extent of Youngwoods Farm when the parish boundary was defined here, some time before 1294, when *la Yengwode* was first recorded (Kökeritz 1940,112), and probably in the twelfth century. The former alignment of the boundary is marked by a green lane to the south of Youngwoods Farm. This lane is not shown in the six-inch scale survey of the Isle of Wight of *c*.1800 but its alignment follows the western boundary of Parkhurst Forest at that time. *Hrecescumbes heafde* 'the head of the valley of the stack' can be located through reference to the next two points on the bounds, *lim pyt* and *hrece leage middeweardre*. Kökeritz was unable to locate *lim pyt* 'lime pit', as he assumed that it was further north in the area of Rodge Brook. *lim pyt* can be identified with 'old marl pit' marked on the first edition of the six-inch scale map, immediately to the north of the Shalfleet detached/St Nicholas detached parish boundary which follows the line of the Carisbrooke to Calbourne road for a short distance to the west of Apesdown Copse. This is on the northern limit of the Upper Chalk, the lime pit could not be located any further north than this due to obvious geological constraints. *hrece leage middeweardre* ('the middle of the stack pasture') is the next boundary location beyond *lim pyt*, so must be located somewhere on the lateral chalk ridge. The Shalfleet detached/Carisbrooke parish boundary passes within 160 metres of a solitary round barrow on the summit of a prominent hill to the east of Ashengrove. This hilltop barrow can be identified as the 'stack', with the ridge to the south-east as 'the stack pasture'. The 'stack' is also referred to in the boundary location to the north of the lime pit, *hrecescumbes heafde* 'the head of the valley of the stack'. This can be identified with the upper course of the stream which flows north-westwards from near Apesdown, joining Clamerkin Brook to the north of Lower Watchingwell. The head of this shallow valley is overlooked by 'the stack', thus 'the head of the valley of the stack'. The precise location where the bounds of S 766 crossed the upper course of this stream can be identified from the first edition of the Ordnance Survey six-inch map. This map shows the configuration of the parish boundary between St Nicholas detached and Carisbrooke parish. In the area to the south of Great Park, a short length of this parish boundary preserves the bounds of S 766, before part of the estate was lost to form the King's park (Great Park) between 1066 and 1086 (below). This short length

of boundary runs for *c*.300 metres from just south of Great Park to the stream. In addition to this length of parish boundary, the northernmost 300 metres of the eastern boundary of S 766 within the Kings park is shown as a soil mark on an aerial photograph dating from 1946 (106G/UK 1665 4137, held by IWCAC). This linear feature was not plotted as a field boundary in the survey of c.1800. It would appear to predate the creation of the park in the period between 1066 and 1086. The soil mark and the short length of parish boundary allow the reconstruction of the line of the bounds of S 766 within the area of the park southwards from the north/south boundary between Shalfleet detached and Carisbrooke parishes and along the parish boundary south of Great Park to the stream. From the stream the line of the bounds can be projected west-south-west to *lim pyt* from where the bounds again follow the Shalfleet detached/Carisbrooke parish boundary, up to *hrece leage middeweardre*. The last location in the bounds of S 766 before the boundary returned to the sea was *æsc stede*,'the place of the ash trees'. This is in the vicinity of Ashengrove, either at the farm site or 600 metres to the south at the south-western extremity of Shalfleet detached. *æscstede* also features in the bounds of S 274 (Fig 4). From at or near Ashengrove, the bounds of S 766 followed the eastern boundary of S 274, also the boundary of Calbourne and Shalfleet detached and Northwood parishes, northwards to the sea beyond Elmsworth Farm.

The Anglo-Saxon Landscape of Watchingwell

The bounds of S 766 provide information about the landscape in the tenth century. The starting point of the bounds, *stiðes fleotes* is no longer an estuary. Its former extent can be reconstructed from the 1:50,000 solid and drift geology map. At its maximum extent, it would have provided a tidal inlet running 950 metres inland. All of this area is now silted up. This former fleet has parallels elsewhere along the northern coast of the Isle of Wight. Further west, Thorley Haven was a significant feature in the topography of the Western Yar until it was reclaimed in the later seventeenth or eighteenth century, and to the east the former Barnsley Haven was protected by a harbour wall in the medieval period.

To the south of this former haven, several of the boundary descriptions give valuable information about the contemporary landscape within the northern claylands of the Island. It is quite possible that *þa ge clyppadan treowa* was located in an area of wood-pasture. Other indicators of land use in this area are *heort lege* 'hart [wood?] pasture' and the two instances of hedgerows (*þa ræwe* and *þære ealdan heort heges*). These are consistent with a landscape consisting of wet heathland and wood-pasture. Hooke (1989,123) observes that hedges in charter bounds were frequently recorded in areas where woodland was being assarted and had been pushed back largely to the estate margins. However, *ealdan* in the phrase *ealdan heort heges* refers to the hedge, rather than the hart (Margaret Gelling, personal communication). It therefore follows that this hedge ('the old hart hedgerow') was not newly formed in the mid tenth century. In the later eighteenth century this hedgerow formed the north-western boundary of Parkhurst Forest. In the tenth century it would appear to have formed the boundary of the unenclosed area later to become the King's Forest, as was the boundary of S 766 in the area which was later known as Youngwoods[1212]. The significance of *ðane haliganstan* 'the holy stone' is uncertain. Bunts Hill (*mot beorh*) has a parallel in the bounds of S 274, *gemot beorh* (Gallibury Hump). However, the Bunts Hill site is a hilltop with no evidence for a barrow, whereas Gallibury Hump is a prominent round barrow. Both would appear to have been meeting places on or near significant boundaries. Beyond *hrecescumbes heafde* (head of the valley of the stack), *lim pyt* was on the margins of the lateral chalk ridge, where chalk was obtained. Margaret Gelling comments that "*lim pyt* was probably a pit in which limestone [*ie*. chalk] was burnt, for whatever purpose" (personal communication). It is possible that this pit was used to produce lime mortar, as even though it was in a relatively remote location in relation to centres of population, the product could be easily transported (*ibid*.). However, other such pits must have existed in more convenient locations for the production of mortar. It is quite possible that the burnt chalk had more than one use. A likely use

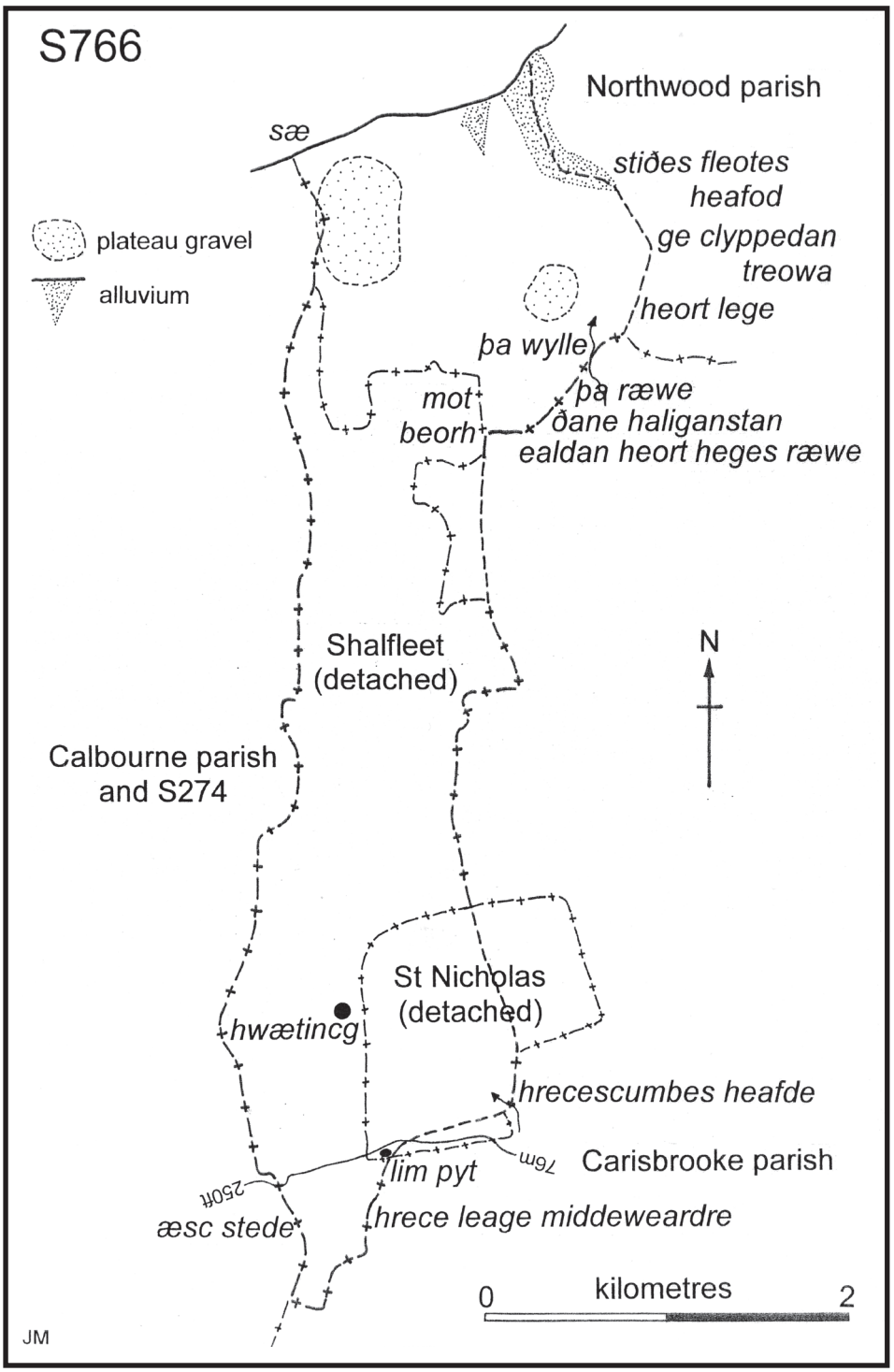

Fig.3: S 766, confirmation of a grant of 10 hides at Watchingwell by King Edgar to Wilton Abbey, 969 AD. Medieval parish boundaries are shown.

would have been for marling the clayland soils in this area. As Osborne White has pointed out, "The Upper Chalk was formerly much dug for marling land on the Tertiary Beds, to which it could easily be carted down from the northern side of the Chalk Ridge" (1921,181). The existence of such a marl pit in the tenth century implies that some of the tertiary clayland was used as arable. This is reflected in the place-name of Watchingwell itself. The first recording of the name is in S766, *ie*. *Hwætinc, Hwætincg le*. The first element would appear to be OE *hwæte* 'wheat', with **Hwæting* meaning 'the place where wheat was grown (or grew)' (Kökeritz 1940,89). The same place-name element, in the form of the adjective *hwæten*, would also appear to have been the origin of Wheaten Bread, 1.6 km north of the manorial centre of Upper Watchingwell, and just to the west of the bounds of S 766 (*ibid*.,91). Watchingwell and Wheaten Bread would have been atypical of this clayland landscape, with the growing of wheat being noteworthy. The occurrence of *le* appended to *hwætincg* in the heading of the bounds of the charter, *ie*. *leah*, indicates the wooded nature of the immediate area around (Upper) Watchingwell at the time. *Hwætincg le* therefore means 'the woodland clearing at the place where the wheat is grown'. At least some of the area beyond the margins of the chalk and along watercourses would have been meadowland, as can be inferred from Domesday Book. The area of *hrecescumbes heafde* was within the King's park in the later eleventh century, where Wilton Abbey's meadowland was located at the time of Domesday (below).

The land use of the southernmost portion of S 766, within the area of the lateral chalk ridge, can also be reconstructed from the Old English bounds in the area. *hrece leage middeweardre* can be translated as 'middle of the stack pasture', with 'pasture' being appropriate for chalk grassland. However, as in the case of *heort lege* (above), an area of wood-pasture is a possibility. The pastoral nature of this area is also indicated by the name *æsc stede* 'place of the ash trees'. The reference to ash trees and the later place-name of Ashengrove (first recorded in its present form in 1630 as *Ashingrove* (Mills 1996,24)) implies the existence of some woodland here of 'grove' proportions. The significant place-name element for a more open environment in the name *æsc stede* is *stede* 'place'. Studies of this place-name element suggest that it had a specific meaning of an area of pasture land in an otherwise wooded area (Sandred 1963,134; Everitt 1986,171)[1313].

S 766 and Domesday Book: The hidage of Watchingwell

S 766 documents the confirmation of a recent grant of ten hides to the nuns of Wilton. In 1066, Watchingwell was still held by Wilton, but there is a discrepancy between the ten hides of 968 and the three hides of a century later. In 1086:

> "Wilton Abbey holds WATCHINGWELL [WATINGEWELLE]. It was always in the (lands of the) Monastery. Before 1066 it answered for 3 hides, now for 2½ hides, because ½ [hide] is in the King's park ..... the meadow is in the park ...." (Munby 1982,52d).

The area of Shalfleet detached was 1012 acres (Ordnance Survey 6 inch map, first edition). This connection of the Watchingwell area with the parish of Shalfleet originated in the early twelfth century when Watchingwell was alienated to the lay lords of Shalfleet (Hase 1994,77,n.73). However, Wilton would also appear to have maintained an interest in Watchingwell until the late thirteenth century, as it was last mentioned in a Wilton document in 1296 (Hockey 1982,65). The area of Shalfleet detached was however not coterminous with the bounds of S 766. By the time that the parish boundary of Shalfleet detached had been established in the twelfth or thirteenth century, a significant portion of S 766 had been alienated from Watchingwell. The northernmost part of S 766, the Thorness area, was part of Northwood parish and this area encompassed 595 acres. In addition to the Thorness area, half a hide had been lost between 1066 and 1086 to the King's park. The area lost between 1066 and 1086 has been reconstructed and can be calculated as having been an area in the order of 215

acres. With 215 acres of clayland being quantified as half a hide, and the total area within the bounds of S 766 calculated as consisting of 1871 acres, the hidage of the whole estate should be about 4½ hides. Assuming that the Thorness area was alienated from Wilton before 1066, and that the northern boundary of Shalfleet detached reflects the southern limit of this alienation, a similar calculation can be made from the 595 acres of the Thorness area. This area was 32 *per cent* of S 766. This represents a little over 1½ hides when compared with the 3 hides of 1066, thus the hidage of S 766 can be inferred as having been a little over 4½. When an allowance has been made for the perhaps greater value of chalk pasture in the Ashengrove area compared with the less productive nature of much of the claylands, and for Anglo-Saxon estates to be given a hidage in round numbers (1 hide, 2 hides, 5 hides *etc*.), the 10 hides of Watchingwell can be corrected to 5 hides. South Newton (*Niwantune*) consisted of 10 hides. It is quite possible that the number of hides of Watchingwell was confused with that of South Newton when S 766 was transcribed.

It would thus appear that 5 hides were granted at Watchingwell by Edgar, which he confirmed in 968. By 1066, 2 hides in the Thorness area had been alienated in a transaction for which we have no written record[1414]. Between 1066 and 1086 a further half a hide had been lost to the King's park. A small area of S 766 (49 acres) was also alienated from the estate in the Youngwoods Farm area, probably after 1086 and before 1294 (see above).

The Calbourne Charter, S 274

This charter purports to record a grant made in 826 by King Egbert to the bishopric of Winchester. The estate consisted of 30 *mansae* at *Cawelburne* (Calbourne) in the Isle of Wight. The original charter was extant in 1643 but is no longer in existence. A copy of the charter is in the *Codex Wintoniensis*. The estate was to be "always free" (without stated reservations) and was to "serve no one but the bishop alone" (Finberg 1964,no.12).

The charter was considered to be authentic by Finberg, but this is no longer accepted. Edwards, in her study of *The Charters of the Early West Saxon Kingdom* has commented that:

> "The unusual nature of the wording, the reference to earlier kings of the Angli and the emphasis on Winchester and on religious sanctions all combine to render this a suspicious document, more likely to be a fabrication of perhaps the tenth century than a genuine ninth-century charter. It may have been fabricated because Winchester owned Calbourne but had no title deed for it. The dating clause and witness list seem basically authentic although somewhat corrupt, but the charter in which they originated may not have been a grant of Calbourne to Winchester" (Edwards 1988,155-6).

Keynes (1994,1111,n.4) has noted that Bishop Ealhstan is absent from the lists of witnesses in S 274, 275 and 276 but that these do include an Ealhstan *dux* or *prefectus*, and he suspects that this is the result of interference by a forger. He comments that "Nor is there much to recommend the authenticity in their received form the glut of charters which purport to have been issued by Egberht in 824-6, and which are preserved in the archives of the Old Minster, Winchester" (*ibid.*,1110-1111). These would have included S 274. He does however conclude that "It cannot be doubted, however, that genuine charters of the mid 820s lie somewhere behind them" (*ibid.*).

Although accepting S 274 as authentic, Finberg has commented that "Nearly all of the diplomatic crimes which can justly be imputed to the Winchester monks arose from this desire to invest with a higher antiquity estates and privileges which in fact rested on unimpechably valid title deeds" (Finberg 1964,227). This may have happened in the case of Calbourne, although there is some evidence which suggests that Calbourne may have belonged to Winchester before the ninth century (below).

The bounds of S 274

Ðis synt þara. xxx. hida land gemæro to Cawelburnan. on Whit. Ærest ór sæ úp ón æscstede. þanon on þæne gemot beorh. of þam beorge ón swines heafod. þanon on suð sæ on Eadgylses muþan. and lang Eadgylses muþan. on bican dæne. þanon on Cawelburnan. and lang Cawelburnan. útt on norð sæ. (Birch 1885-1893,no.392).

'These are the boundaries of the 30 hide estate at Calbourne on the Isle of Wight. Starting from the sea up to the place of the ash trees thence to the moot mound. From that mound to swine's head, thence to the south sea at Eadgils's river mouth along Eadgils's river mouth to Bic(c)a's (or the wedge shaped hill spur) valley thence to the Caul Bourne along the Caul Bourne out to the north sea'.

The estate of Calbourne documented by S 274 has a further set of bounds (S 1581) which will be discussed below.

Identifying the Bounds (Fig 4)

The bounds of S 274 have been discussed by Grundy (1921,137-8), Kökeritz (1940,77) and Currie (1999,11-13). The bounds have been previously mapped by Arnold (1975). Grundy commented that "The survey is of a very general character, giving very few landmarks considering the area of land included" (*ibid*.,137).

The eastern boundary of the 30 hides of Calbourne was the ecclesiastical parish boundary which ran from the Solent southwards to the English Channel, and which defined the eastern limits of Calbourne and Brighstone parishes, and the the western limits of Northwood, Shalfleet detached (Watchingwell), Carisbrooke, and Shorwell. From ó*f sæ* the boundary runs south to Ashengrove, which as *æscstede* also features in the bounds of S 766. *Gemot beorh* can be identified with Gallibury Hump, a prominent round barrow almost on the highest point of the lateral chalk ridge on the parish boundary between Brighstone and Carisbrooke parishes, and adjoining the trackway following the line of the ridge[1515]. *Swines heafod* would appear to be a location on the parish boundary between Brighstone and Shorwell parishes, but its precise location is uncertain. The *heafod* ('head') may relate to a hill, so would refer to Fore Down to the north of the now deserted settlement site of Rancombe (Kökeritz 1940,77), or the un-named greensand ridge to the south of Rancombe. Alternatively, "... *swines* may be OE **swin* or **swin* 'creek, channel', and *swines heafod* thus be interpreted as 'the head of the channel-like river', perhaps the stream rising at Woolverton and emptying into the sea at Grange Chine..." (*ibid*.). The former is more likely, as the parish boundary crosses the stream in the vicinity of present-day Yafford Mill. The source of the stream and the head of the valley is a further 1½ km to the north-east, at North Court. The parish boundary between Brighstone and Shorwell reaches the sea near Shepherd's Chine, which can be identified with *Eadgylses muþan.* This point also forms the westernmost boundary of the reconstructed bounds of ECW 103. The bounds of S 1581 are almost identical to those in S 274. S 1581 give more detail about the bounds of Calbourne approaching the 'south sea' and are consistent with the bounds following the parish boundary between Brighstone and Shorwell, reaching the sea just to the east of Shepherd's Chine.

The reconstruction of the western boundary of S 274 is more problematic. *bican dæne* would appear to refer to a chine further westwards along the coast from Shepherd's Chine. The first major chine is Grange Chine. It is possible that the bounds of S 274 followed Grange Chine up from the coast to the vicinity of Shate Farm, and followed the tributary stream northwards past Moortown. From here onwards the bounds may have followed the parish boundary between Mottistone and Brighstone northwards from the vicinity of Rock Roman villa up to the northernmost part of Mottistone parish in the col in the lateral chalk ridge. From here onwards the bounds may have followed the dry valley northwards down to the head of the *Cawelburnan,* and from thereon following the stream to the sea

via Shalfleet Lake. Such a reconstruction would accord with the simplicity of the western bounds of S 274, there being no boundary marks mentioned between the coast at *bican dæne* and the Caul Bourne. This reconstruction follows a relatively straight line from the coast to the Caul Bourne, and follows the entire valley of the Caul Bourne. However, the upper part of this valley formed the manorial boundary between Swainston and Westover. In 1086, both of these manors were referred to as *Cauborne.* This implies that Westover was formerly part of the bishop of Winchester's estate, and that Westover as a separate entity was a relatively recent creation in the later eleventh century. The place-name Westover 'the western (river) bank' (Kökeritz 1940,91), implies that the manor was named due to its geographical relationship to Swainston/ Calbourne.

The case for the south-western boundary of S 274 being much further to the west has been made by Currie (1999). He has argued that the existence of common pasture on the chalk downland at Rowborough documented *c*. 1240 and in 1400 implies that Calbourne and Mottistone may have once formed an estate which later became sub-divided (*ibid*.,11; Hockey 1991, nos.321,327). He suggests that *bican dæne* may be identified as Brook Chine. This reconstruction of the south-western boundary would have included the whole of Mottistone and Hulverstone within S 274. Alternatively, it is argued that *bican dæne* may have been a small chine or similar feature which formerly existed at the southern end of Hulvertone's western boundary which has now been lost through coastal erosion (*ibid*.,12-13).

The most plausible reconstruction of the western bounds of S 274 starts with the identification of *bican dæne* with Chilton Chine. This forms the southernmost part of the parish boundary between Mottistone and Brighstone. From here the parish boundary crosses Chilton Green and follows Pitt Place Lane up to the margin of the Island's lateral ridge. Much of Pitt Place Lane is a sunken way. Pitt Place Lane formed the westernmost extremity of the manor of Brighstone in the manorial survey of 1630 (Jones 1993,79). From the northern end of Pitt Place Lane at its junction with the east-west road, the bounds of S 274 would appear to ascend the lateral ridge at Harboro. Grundy has commented that "The present boundaries up on the high land of the downs are of a later creation, made probably at a period when more precise definition became necessary" (Grundy 1921,138). From Harboro, the bounds would have approximately followed the line of the Shalfleet/Calbourne parish boundary down to the Caul Bourne, and then along the stream and parish boundary out to Shalfleet Lake, and thus *útt on norð sæ.* This reconstruction includes the whole of the manor of Westover within S 274 and is consistent with the post-medieval geography of Brighstone manor.

The Anglo-Saxon Landscape of Calbourne

The bounds of S 274 provide some contemporary information about the landscape in the ninth or tenth century. *æscstede* would appear to have been an area of woodland of 'grove' proportions, which was reflected in the later place-name of Ashengrove. A full discussion of the tenth century environs of *æscestede* is more appropriate in an examination of the bounds of S 766 (above). *gemot beorh,* the round barrow now known as Gallibury Hump, would also have been in a relatively open landscape, due to its use as a boundary mark where it would have been visible from a distance, especially from the north, and as a meeting place. As mentioned above, the identification of *swines heafod* is problematic, and even if located accurately, gives little information about the Anglo-Saxon landscape. *Eadgylses muþan* would appear to record a former land holder on this part of the coast. The same could be said of *bican dæne* if this place-name refers to the personal name Bicca. The interpretation of the first element of *Cawelburnan* is not clear-cut. It may refer to cultivated cabbage, from OE *cawel, caul* meaning 'cole (wort), cabbage, kail', or to sea cabbage. Alternatively, it may be a pre English name which can be compared with the river Cale in Somerset (Kökeritz 1940,75-76).

S 274 and Domesday Book

In the later eleventh century, the bishop of Winchester's estate of Calbourne was described as consisting of 32 hides:

> "Walkelin Bishop of Winchester holds CALBOURNE [*Cauborne*] in lordship. It was always in the (lands of the) Monastery. 32 hides, but before 1066 and now did not pay tax except for 17 hides ..... Of this land, Robert holds 6 hides, Herpolf 2 hides and Alfsi 3½ hides. 7 freeholders held these hides from the Bishop, and they could not withdraw to another or from him ..." (Munby 1982,52c).

However, the area of S 274 consisted of more than just the bishop of Winchester's estate at Domesday. Other land holdings which can be identified as having being located within the bounds of S 274, with their hidages in 1066, were:

> Calbourne/Westover (*Cauborne*), 3 hides less 1 virgate (52d)
> Coombe (*Seutecome*), 1 hide (53c)
> Chilton (*Celatune*), 1 hide (53c)
> Chilton (*Celatune*), ½ hide (53c)
> Shate (*Soete*), ½ hide (54a)
> Brighstone (*Weristetone*), 2 hides (53c) [16]

It is very unlikely that the total area of S 274 consisted of approximately 40 hides in 1066. The 32 hides of the bishop of Winchester's estate of Calbourne may very well reflect the grant in S 274 of 30 hides with the addition of the neighbouring 2 hides of Atherfield (ECW 103). The 32 hides in Domesday would therefore not reflect the situation on the ground in the later eleventh century, but the hidages of the two estates before any alienation of parts of these estates. The 'real' hidage of the bishop's landholding within the bounds of S 274 in 1066 would appear to have been approximately 22 hides. This can be calculated from the nominal 30 hides of the estate minus the 8 hides (less 1 virgate) of Westover, Coombe, Chilton, Shate and Brighstone. The 17 hides for which tax (geld) was paid in 1066 represents 'beneficial hidation', with a reduction of the number of taxable hides from approximately 22 to 17 hides. The practise of 'beneficial hidation' would appear to have originated in 844 with the first 'decimation' by King Æthelwulf, an alleviation of dues on one tenth of all inheritable lands in the kingdom of Wessex (Finberg 1964,187,206). A precedent was set by king Alfred for more substantial reductions, when he reduced the hidage of Chilcomb, an estate belonging to Winchester, to one hide from a probable assessment of 100 hides (Finberg 1964,no.27). A closer geographical parallel to Calbourne is Fareham. "Domesday Book records that Edward the Confessor reduced the assessment of Fareham, another Winchester manor, from 30 hides to 20 'on account of the Vikings, because it is on the sea'"(Finberg 1964,220-221;Doubleday 1900,462a).

By 1066, the estate recorded in S 274 no longer consisted of the whole of the Calbourne and Brighstone areas. The Domesday landholdings of *Seutecome, Celatune* (x2), *Soete* and *Weristetone* were all located south of the lateral chalk ridge. All of these were held by named individuals in 1066, with the exception of *Weristetone* which was held by three free men of King Edward in freehold. The fragmentation of Winchester's estate in the area to the south of the lateral chalk ridge was well under way by Domesday. The bishop would however retained direct control over some of the lands to the south of the ridge. These were the 6 hides held by Robert, 2 hides by Herpolf and 3½ hides by Alfsi in 1086, which had been held by 7 freeholders before 1066. These have not been identified in the modern landscape despite some educated guesses reported in Page (1912,211-2), but must relate to landholdings in the Brighstone area[1617]. Domesday Book thus provides a snapshot of two different

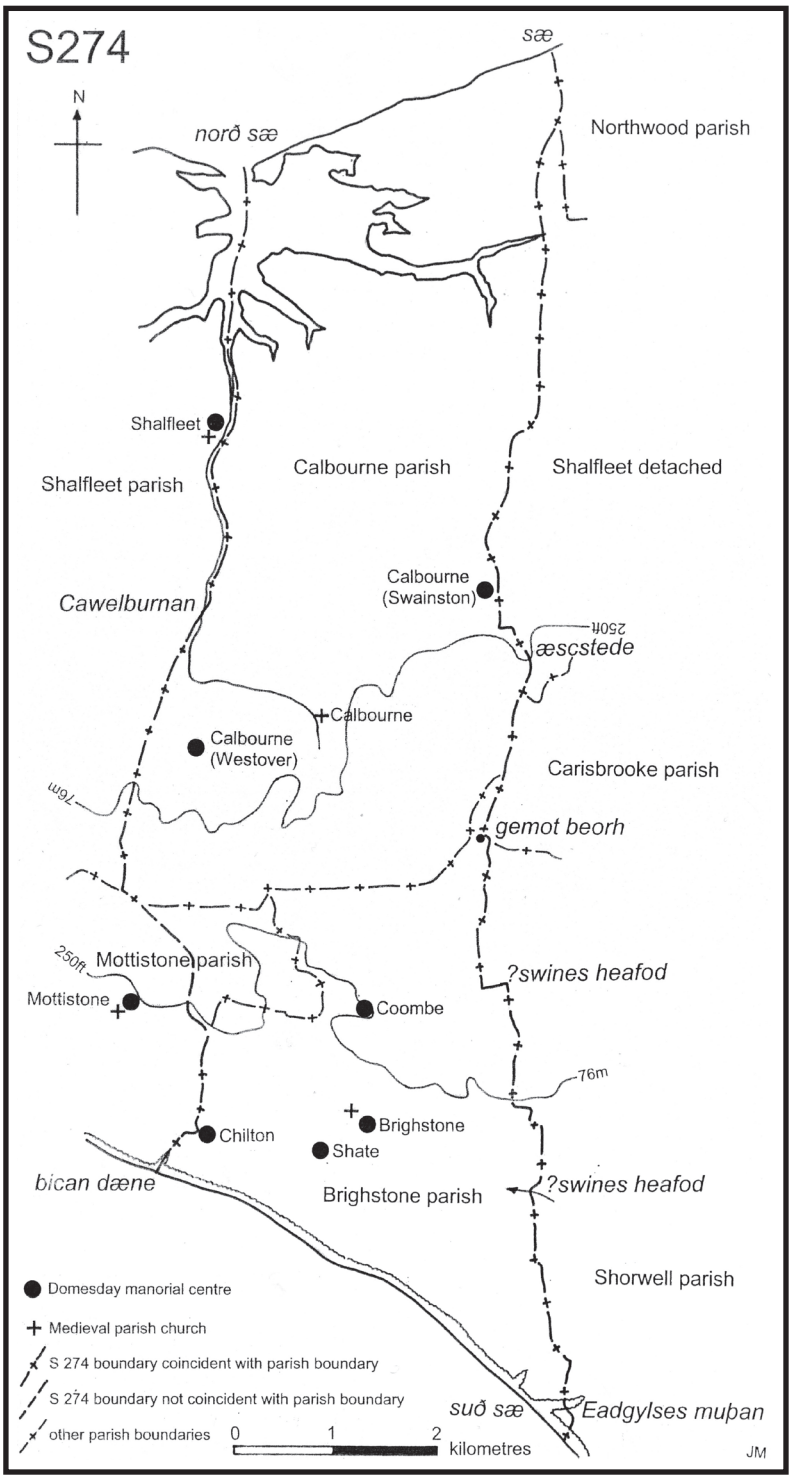

Fig.4: S 274, grant of 30 *mansae* in Caulbourne by King Egbert to the bishopric of Winchester, 826 AD. Medieval parish boundaries are shown.

stages in the alienation of Winchester's lands in the area to the south of the ridge, *ie*. the grants made by Winchester before 1066 and the three tenancies recorded in 1086. The situation to the north of the lateral chalk ridge was much simpler. This area consisted of the bulk of Winchester's estate and *Cauborne* on the western side of the stream. The alienation of the 3 hides less 1 virgate of the estate which was later known as Westover would appear to have been a relatively recent occurrence in 1066, as this estate was recorded as having the same place-name as the parent estate.

A further charter dating from 963x975 which refers to the restoration to the church of Winchester of 30 *mansae* at *Etdreðecumb* can be identified with Calbourne (S 821)[1718]. It would appear that there had been no fragmentation of Winchester's estate at Calbourne by this date.

The Calbourne Charter, S 1581

A second set of bounds exist for Calbourne, accompanied by the bounds of Downton (Wiltshire). "This survey, which has not been printed before, is found on fo. 61 of the Codex Wintoniensis (BM Add. MS. 15,350). It is not associated with any charter, but cf. No. 109 [S 821]. The text is as follows." (Finberg 1964,no.352):

This synt þa land ge mære to DUNTUNE ..... This synt þara XXX dida land ge mære on wiht þe þær to hyrað. Ærest of sæ up on æsc stede; þonon on þone gemot beorh; of þam beorge on swines heafod; þonon on suð sæ; upp of þære suð sæ on Eadgylses muþan; andlang Eadgylses muþan on bican dæne; þonan on Cawelburnan; andlang Cawelburnan utt on norð sæ (Finberg 1964,no.352).

'These are the land boundaries of Downton [Wiltshire] ..... These are the boundaries of the 30 hides on the Isle of Wight which belong to it [*ie*. Downton]. Starting from the sea up to the place of the ash trees, thence to the moot mound. From that mound to swine's head, thence to the south sea. Up from that south sea to Eadgils's river mouth, along Eadgils's river mouth to Bic(c)a's (or wedge shaped hill spur) valley, thence to the Caul Bourne, along the Cawel Bourne out to the north sea'.

The wording of the bounds of S 1581 for Calbourne is very similar to that of S 274. The only significant difference is that in S 1581 the bounds read '... thence to the south sea. Up from that south sea to Eadgils's river mouth ...' whereas S 274 reads '.... Thence to the south sea at Eadgils's river mouth ....'. This difference can perhaps be explained through reference to the parish boundary between Brighstone and Shorwell. This boundary reaches the sea to the south-east of Shepherd's Chine, having crossed the chine just to the north, rather than at the mouth of the chine (Fig 4). The version of the bounds in S 1581 thus more accurately reflects the relationship of the bounds of Calbourne to the topography of the area.

Calbourne and Downton

There is some evidence to suggest that Calbourne had been dependent on Downton for some considerable time by the later Anglo-Saxon period. In addition to the undated bounds of Downton and Calbourne in S 1581, the restoration by King Edgar of 30 *mansae* at *Etdrethecumb*, which can be identified with Calbourne, and 100 *mansae* at *Duntune* in S 821 (963x975), attest to a connection between the two estates in the tenth century. There is no dated evidence for a connection previous to this date, but a long-standing association is quite likely.

The Domesday entry for Downton makes no mention of a connection with Calbourne, but later documentary evidence suggests that Calbourne's dependent status continued for a few centuries afterwards (below). Domesday provides a picture of a substantial estate centred on Downton:

> "The Bishop of Winchester holds DOWNTON. Before 1066 it paid tax for 100 hides less 3. 2 of these were not the Bishop's because they were taken away with the other three from the

> church and from the Bishop's hand in King Canute's time. Land for 46½ ploughs. Of this land 30 hides is in lordship; 13 ploughs there, 40 slaves. 64 villagers and 27 smallholders who have 17 ploughs. 7 mills which pay 60s; meadow, 60 acres; pasture 2 leagues long and 1 league wide.
>
> Of the land of this manor William son of Braose holds 14 hides, Waleran 5 hides, Ralf 5 hides, Ansgot 3½ hides. The king has 4 hides in his forest. The church of this manor has 4 hides. They all hold from the bishop. The holders of these lands before 1066 could not withdraw from the church.
>
> Value when Bishop Walkelin acquired this manor, £60; value now of what he has in lordship. £80; of what the men-at-arms have, £23; of what the church has, £3" (Thorn and Thorn 1979,65c).

This Domesday entry for Downton would also have included the area of the Ebble valley which has been known as Bishopstone from the twelfth century onwards. From the later tenth century, Bishopstone was physically seperate from the main part of the estate at Downton, a result of grants from the Downton estate in the period between it passing from Winchester to King Edward the Elder in 909 and its restoration to the Old Minster in 997 by King Ethelred (Crowley 1980,6). The relative significance of the two parts of the estate at this latter date are indicated by Downton being rated as 55 *mansae* and Ebbesbourne (Bishopstone) as 45 *mansae* (*ibid*.,28;S 891). Prior to the tenth century, the Downton estate was ".. probably an unbroken tract of land extending from the Avon valley perhaps all the way up the Ebble valley .." (*ibid*.,27).

Because of the 'diplomatic crimes' of the bishopric of Winchester in the later Anglo-Saxon period, which led to the drawing up of many spurious land charters, including four charters relating to Downton (S 229, S 275, S 393 and S 540), it is uncertain when Winchester first aquired Downton. However, one of these spurious charters may very well provide evidence of the original grant: "It seems more than likely that it was Offa who gave Downton.... to Winchester, for the charter of 'Cynevale' [*ie*. Cenwalh], ... relating to this property [S 229] has a purely Mercian witness list belonging to the last three years of Offa's reign" (Finberg 1964,218). The grant of Downton to Winchester may therefore date to the period 793x796, during a time when the Mercian king had much influence in Wessex.

A grant of Downton to Winchester in the late eighth century may give some indication as to when Winchester acquired Calbourne, *ie*. after obtaining Downton. However, it is possible that Calbourne was acquired before this date, and then became dependent upon Downton in or after the latter years of Offa. It has been argued that the connection between Calbourne and the church at Winchester may have originated in the granting of a quarter of the Isle of Wight to St Wilfrid by King Cædwalla in 686, as related in Bede's *Eccleasiastical History* (Margham 2000,123-125). Although there was no specific connection documented between Calbourne and Downton at Domesday, there are hints of such a connection in the hundredal organisation of the two estates. Downton was the centre of a hundred which had originated in grants of immunity from paying dues to the crown by Anglo-Saxon kings to the bishop of Winchester. It thus became a private hundred, ".. and the wide range of administrative and judicial liberties later held in respect of it, passed with the see" (Crowley 1980,1). The hundredal organisation of Calbourne at Domesday is an anomaly, for the land of the bishop of Winchester at Calbourne was said to lie "In CALBOURNE Hundred, which lies in BOWCOMBE Hundred" (Munby 1982,52c). Bowcombe hundred would appear to have been the western half of the Island which later became known as the West Medine. The bishop's estate at Calbourne thus also has some traits of being a private hundred administered solely by the church in the eleventh century, being

'always free' and to 'serve no one but the bishop alone' (Finberg 1964,no.12; S 274). This however, in itself is not unusual, for many of the Hampshire estates of the see of Winchester were coterminous with Domesday hundreds.

A connection between Downton and Calbourne would appear to have continued for some considerable period after the eleventh century, probably up until the siezure of the manor of Swainston by the king in 1284 (Page 1912,218). Calbourne would have been dependent upon Downton even after the building of the bishop's residence at Swainston, probably by Richard of Ilchester, Bishop of Winchester, 1174-1188 (Page 1912,217). The charter for Newtown, a planned town within the Calbourne estate, was signed at Downton in 1255. By this time, the Downton estate was administered from the motte and bailey castle, now known as the Moot, which was constructed in 1137. This replaced an administrative centre which was either on the site of the Moot, or nearby in a field now known as Old Court (Haslam 1976,21).

It is quite possible that Calbourne church was in some way dependent upon the church at Downton. There is no evidence for a church at Downton until the Domesday survey specifically mentions the church there with its endowment of 4 hides. A reading of the Domesday entry for Downton may imply that these 4 hides were granted to Downton church between 1066 and 1086, but even this would not disqualify it from being a minster church of long standing (Crowley 1980,46).

Dependent Estates : The evidence of Charters and Domeday Book

In the discussion of the Calbourne charter (S 1581) it has been demonstrated that Calbourne was an estate dependent upon an estate centre in mainland England. Parallels for this type of relationship are to be found in other charters relating to the Isle of Wight and in Domesday Book.

The bounds of Ningwood in S 543, the grant of 1 hide in *Vexta Insula*, also include the phrase 'which belong to it' which would appear to refer to the 1 hide at *Winterburnan* in Wiltshire, the other estate which was granted to Ælfsige by King Eadred in the same charter. The bounds of Watchingwell are prefaced by the sentence 'These are the boundaries of the ten hide estate of Watchingwell which belongs to [South] Newton' (S 766).

Further examples of estates on the Isle of Wight being dependent upon estates in mainland England can be cited from the Domesday survey of Hampshire:

1. Eling was held by the King in 1086. It is not recorded who held it before 1066. It is however quite likely to have been King Edward as it was stated that the number of hides were unknown and that it paid half a days revenue before 1066. Eling had two outliers in the Isle of Wight of unspecified hidage which had been held by William FitzOsbern after 1066 (Munby 1982,38d).

2. Breamore was held by King Edward before 1066. Breamore is stated to belong to Rockbourne which also had been held by King Edward. Rockbourne appears to have been the *caput* of the estate, as "It has never paid tax or been assessed in hides". Breamore was hided, although its total hidage is not stated. It did however have "1 hide on the Isle of Wight which Gervi holds" (Munby 1982,39a). This hide can be identified with the 1 hide of Ningwood in Domesday (Munby 1982,54a) and the 1 hide in *Vexta Insula* of S 543.

3. Holdenhurst had been held by Earl Tostig and consisted of 29 hides and ½ virgate before 1066. Seven of these hides were on the Isle of Wight (Munby 1982,39a).

4. Ringwood had also been held by Earl Tostig. It consisted of 28 hides before 1066, of which six were on the Island. The mainland hides "never paid tax" (Munby 1982,44b).

5. The canons of Holy Trinity, Twynham held 5 hides and 1 virgate in Twynham (Christchurch) and one hide on the Isle of Wight. "These hides always were in the (lands of) the Church itself" (Munby 1982,44b).

There was also a connection between Stanswood, on the south-eastern margins of the New Forest, and the Island. It is stated in Domesday that "This manor lies in the revenue which he [*ie*. the king] has from the Isle of Wight" (Munby 1982,38d). This small estate of only 2 hides before 1066 and 1 hide in 1086 (1 hide became part of the Forest) was thus regarded as being subsidiary to property on the Island, rather than the other way round in 1086.

In addition to this information from mainland Hampshire, the Domesday survey of Wiltshire records the relationship between Amesbury and Bowcombe. Amesbury had been held by King Edward. "It never paid tax and was not assessed in hides". It paid one night's revenue:

> "In this manor are enumerated the lands of 3 thanes, which they held themselves before 1066. Earl William [FitzOsbern] gave those to Amesbury in exchange for Bowcombe. King Edward when he was ill gave 2 hides of this manor's land to the Abbess of Wilton, which she had never had before, but she held them afterwards. Earl William gave *QUINTONE* and Swindon and Cheverell, which were thanelands, for the Isle of Wight land which belonged to the Amesbury revenue" (Thorn and Thorn 1979,64d).

The reference to Bowcombe in the Hampshire Domesday survey records that "It was of King Edward's revenue. Then it answered for four hides, now for nothing" (Munby 1982,52b). The relatively low assessment of 4 hides may have been the result of 'beneficial hidation'.

The mainland estates which had outliers on the Isle of Wight can be categorised in the following way:

A. Substantial royal estates which were associated with minster or possible minster churches centred on major river valleys, with much smaller outliers on the Island:

i) Eling, alongside Southampton Water, a royal estate which was not hided in 1066, which had a minster church. Eling was the administrative centre of Redbridge hundred (Page 1911,544; Hase 1988,46).

ii) Breamore, in the Avon valley, belonging to the royal estate of nearby Rockbourne, and was not hided in
1066. Breamore has a substantial late Anglo-Saxon church which may well have been a minster church (Hase 1994, fig.3.3).

iii) Amesbury, an important royal estate in the valley of the Avon, which was not hided in 1066. Amesbury had a minster church (Hase 1994,fig.3.3). Amesbury was a royal vill of long-standing, first recorded as such in the will of King Alfred (S 1507). Amesbury was also a hundredal centre.

B. Estates which were held by Earl Tostig before 1066, of moderate size, but were centred on major river valleys. They would appear to have been granted from more extensive royal estates, their former dependent status being reflected in their place-names associated with woodland, and having churches which were daughter churches of Twynham (Christchurch):

i) Ringwood, in the Avon valley, consisting of 22 hides with a further 6 hides on the Island.

ii) Holdenhurst, in the Stour valley, consisting of a total of a little over 29 hides, of which 7 were on the Island.

C. Ecclesiastical estates:

i) South Newton in the Wylye valley, an estate of 10 hides which belonged to nearby Wilton Abbey. The estate at Watchingwell which belonged to it is described as consisting of 10 hides (S 766), but probably consisted of 5 hides (above).

ii) Twynham, Holy Trinity (Christchurch), which held 1 hide on the Isle of Wight.

iii) Downton, the 100 hides centred on the Avon valley with its estate of 30 hides at Calbourne. In many respects, Downton has much in common with the large royal estates listed above. The estate consisted of a substantial area with its *caput* in a major river valley. It is quite likely that it had a 'superior' church at the time of Domesday. Downton was the centre of a hundred.

Notes

1. The use of the terms West Medine and East Medine in the titles of these two papers is anachronistic as they were not recorded as hundred names until 1181 (Kökeritz 1940,3). The division of the Isle of Wight into two hundreds, with the Medina river and estuary as the boundary, has been claimed as a twelfth century development (*ibid.*,2-3) and it has been suggested by the same source that at Domesday the hundreds of the Island consisted of Bowcombe (most of the Island), Calbourne (the bishop of Winchester's estate) and *Hemreswell* (the manors of Yarmouth, Shate and Ningwood). Despite this suggestion the Domesday Book folios actually indicate that, apart from the anomalies of Calbourne and *Hemreswell*, the Island was divided into two hundreds separated by the Medina. All of the lands belonging to King William to the east of the Medina are not specified as belonging to a hundred, whereas those to the west were in Bowcombe hundred. Although the lands held by William son of Stur are headed 'In Bowcombe Hundred', all his manors to the west of the Medina are enumerated, followed by those to the east. No hundreds are mentioned for the lands of Jocelyn son of Azor, but the enumeration of his lands starts with his manors east of the Medina, followed by those to the west. The only inconsistency is the land held by William son of Azor, with the manor of Bonchurch listed with his two manors to the west of the Medina, then followed by the remaining manors to the east. It would appear that the Isle of Wight did consist of two main hundreds in the later eleventh century, Bowcombe hundred to the west of the Medina, and an un-named hundred to the east.

2. The process of reconstructing the Old English charter bounds was as follows:
i) Translations of the Old English bounds were produced with the assistance of Dr Margaret Gelling.
ii) The bounds were plotted on Ordnance Survey six-inch scale base maps (first editions published in the 1860s). The interpretations of previous researchers, particularly Grundy (1921;1926) and Kökeritz (1940), were taken into account during this process.
iii) The reconstructed bounds were walked and notes made about significant findings in the field. The boundaries of the two estates in the study without Old English bounds (ECW 103 and S 1391) were also walked.

3. Sawyer (1968) has been updated as the *Electronic Sawyer*, which can be consulted on the Internet.

4. Wellow, *æt Welewe* and *æt Welig*, is listed in the will of King Alfred. This may be Wellow on the Isle of Wight, but could refer to Wellow in Hampshire, in Somerset or in Wiltshire (S 1507).

5. The three common dues were the building or repair of fortifications, the building or repair of bridges, and military service.

6. "... which belongs to it ..." means that the main estate was elsewhere and that this was a detached property. Although it was more usual for such a detached property to be dependent on a larger estate

elsewhere, it would appear that the 1 *mansa* in *Vexta Insula* was dependent upon the 1 *mansa* at *Winterburnan*. The bounds of *Winterburnan* commence with the phrase "These are the bounds of the hide at Winterbourne ..." (Grundy 1920,22), the phrase "which belongs to it" not being used in the bounds of this estate. Attempts have been made to associate *Winterburnan* with Ford in Laverstock (Wiltshire), "but it is difficult to identify any of the boundary points and we must with Grundy (ii,22) leave the matter in doubt" (Glover *et al.*, 1939,xli).

7. There are nine field-names which include the word slade in the Tithe Apportionment schedules (*c.* 1840) for the Isle of Wight Seven of these were used as arable land and one was an area of woodland (Woodslade Coppice). In addition to these field-names, Haslett Farm in Shorwell is a slade place-name, first recorded as *de Hirslade* in 1299 (Kökeritz 1940,220). All of these names refer to shallow valleys which either have small streams or no water-course. Some of the minor valleys referred to in the field-names do have steep profiles, such as the simplex name Slades in Shorwell, in a shallow dry valley high up in the chalk of the Island's lateral ridge, but most are in areas of more subdued topography. The two instances of slade in the bounds of S 543 accord with the observation made by Kitson that the word *slæd* in charter boundary clauses denotes 'flat-bottomed, especially wet-bottomed valleys' (quoted by Gelling and Cole 2000, 141).

8. Dr Maurice Turner has suggested that *Wullafes hlipan* may refer to a deer leap (personal communication). A deer leap would have enabled deer to enter an enclosure by jumping but was constructed in such a way as to prevent the animals from leaving. The Medieval deer-park of Shalfleet would probably have been in the area bounded by Western Haven to the north-west and Shalfleet Lake to the east, so would needed a relatively short park pale on its southern landward side, quite possibly following the reconstructed bounds of S 543 from Western Haven through Woodslade Coppice to *Wullafes hlipan*.

9. This also accords with the medieval useage of the term 'moor': '.. the 'moors' of the Isle of Wight are flat, low-lying areas bounded by watercourses, capable of producing a heavy cut of grass' (Hockey 1970,71).

10. The place-name literature for the Isle of Wight does not mention *Preston* in Ningwood (Kökeritz 1940;Mills 1996). Mills (1996,83) gives the origin of Preston in Ryde as 'The farmstead or estate belonging to the priests', with the first element of the name from Old English *preost* (genitive plural *preosta*). The same origin, *ie*. plural 'priests', is given for Presford, near Shorwell (Mills 1996,83). The examples of Preston cited in his work on *English Place-Names* are also derived from the plural, with one exception (Mills 1991,263-4).

11. The reference to *niwantune* in the preamble to the bounds of Watchingwell is a reference to an estate of 10 *mansae* at *Niwantune* (South Newton) in the Wylye valley of Wiltshire, which had been granted by King Edmund to Wilton in 943, along with a meadow beside the Wylye and an estate of 3 *mansae* at *Fyrstesfelda* (Frustfield) in Whiteparish (Finberg 1964,260; S 492; Hooke 1998,53-4).

12. It is possible that the King's Forest was not newly-created in 1066-1086 but was a Norman reordering of an Anglo-Saxon hunting area, perhaps with *ealden heort heges* as a boundary (personal communication, Maurice Turner).

13. A possible interpretation of *æsc stede* (S 766 and S 274) is 'the ash-spear place', *ie.* 'place of battle' (personal communication, Della Hooke).

14. Thorness is not recorded in Domesday. It does not enter the extant written record until 1198x1216 (*Torneyam*). The name in its early forms was derived from *thorn* and *hege* or *hæg*, 'the thorn-tree hedge or enclosure' (Mills 1996,102). Although it can be inferred as having been tenurally separate from Watchingwell by 1066, there are no obvious candidates for manorial centres within the area as having control over Thorness at Domesday. It would appear that Thorness was a sub-tenancy of a manorial centre elsewhere on the Island or an outlying portion of a mainland manor which was not specifically recorded as such in 1086.

15. It has been claimed that *gemot beorh* refers to an earthwork enclosure some 250 metres to the south of Gallibury Hump, and that this enclosure was the site of the *gemot* (moot-place) (Crawford 1949-52,138-9). This can be dismissed through reference to recent place-name research. *Beorg* means 'rounded hill or tumulus' (Gelling and Cole 2000,145). The meaning of 'rounded hill' is appropriate for *mot beorh* in the bounds of S 766 (Bunts Hill) and for *stan beorg* 'stone hill' in the bounds of S 1663 (identified as the carstone hill overlooking Sainham). This meaning however does not accord with the topography of the lateral chalk ridge in the Gallibury area, so *gemot beorh* in the bounds of S 274 is to be identified as the *beorg*-shaped tumulus of Gallibury Hump.

16. Domesday *Weristetone* can probably be identified with Brighstone (Mills 1996,33-4).

17. Page (1912,211-2) identifies Herpulf's 2 hides with Waytes Court, Robert's 6 hides with Limerston, and Alfsi's 3½ hides with Uggaton.

18. S 821 is the restoration to the church of Winchester of 100 *mansae* at *Duntune* (Downton, Wiltshire) and 30 at *Etdreðecumb* in the Isle of Wight by King Edgar (963x975). It states that both estates were first given by King Cenwalh and subsequently by King Cædwalla, but were usurped by some of the king's predecessors. It also includes the renewal of the church's title to *Cyltancumb* (Chilcomb, Hampshire), which is to be administered by the bishop in order to provide food for the cathedral clergy (Finberg 1964,no.109). Kökeritz (1940,lix-lx) identifies *Etdreðecumb* with Bowcombe. At the time of Domesday, Calbourne Hundred formed part of Bowcombe Hundred (*ibid*.,2). This, the hidage of the estate, and the close connection between Downton and Calbourne documented in S 1581 indicate that the 30 hides at *Etdreðecumb* were coterminous with the 30 *mansae* (hides) at *Cawelburne* (S 274). The reference to King Cenwalh is implausible (Finberg 1964,217; Margham 2000,125).

Abbreviations

IWCAC Isle of Wight County Archaeological Centre
IWCRO Isle of Wight County Records Office

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Table 1: INDEX OF ANGLO-SAXON CHARTERS RELATING TO THE ISLE OF WIGHT

ECW 1 688x726 lost, Ine to the church of Winchester.
30 hides in *Ewereland* [Yaverland]
50 hides in *Breredinges* [Brading]

ECW 4 740x756 lost, Cuthred to the church of Winchester.
40 hides in *Muleburnam* [unidentified]
25 hides in *Banewadam* [unidentified]
22 hides in *Wippingeham* [Whippingham]

S 274 826 B Egbert to the bishopric of Winchester
30 *mansae* in *Cawelburnan* [Calbourne]

S 281 838 Egbert to the bishopric of Winchester
40 *cassati* in *Scealdanfleote* [Shalfleet]

S 1507 873x888 Will of Alfred
Eaderingtune [Arreton]
Welig [Wellow?]

S 543 949 B Eadred to Ælfsige
1 *mansa* in *Vexta insula* [Ningwood]
1 *mansa* at *Winterburnan* [Winterbourne, Wiltshire]

S 1662 951x955 B Eadred to ?
2 hides at *Beaddingaburnan* [Bathingbourne]
1 hide at *Linlande* [unidentified]

S 1663 955x959 B Eadwig to Æthelgeard
5 *mansae* at *Beaddingaburnan* [Bathingbourne]

ECW 103 959x975 lost, Edgar to the church at Winchester
2 hides at *Aderingefeldam* [Atherfield]

S 766 968 B Edgar to the nuns of Wilton, confirmation
10 hides at *Hwætincg* [Watchingwell] and properties in Wiltshire
[South Newnton, Sherrington, Deverill, Baverstock, and *Frustfield*]

S 821 963x975 Edgar to the church of Winchester, restoration of
30 *mansae* at *Etdrethecumb* [Calbourne]
100 *mansae* at *Duntune* [Downton, Wiltshire] and renewal of Winchester's title to
Cyltancumb [Chilcomb, Hants]

S 842 982 B Ethelred to the New Minster at Winchester, confirmation, various properties including
2 hides at *Heantune* [Branstone]
2 hides at *Beadingaburnan* [Bathingbourne]
2 hides at *Meolocdune/Meolcburnantune* [Ashey]
1 hide at *Stathe* [Fishbourne]

S 1391 1043x1044 Exchange between Bishop Ælfwine of the Old Minster and Osgod [5 hides] at *Wrocceshele*

S 1581 no date B bounds of Calbourne and Downton [Wiltshire]

ECW: Charters which have been lost, but are referred to in the *Annales Monasterii de Wintonia* (Luard 1865) are referenced by their number in Finberg (1964)

S: Extant charters (surviving in later copies) are referenced by their number in Sawyer (1968)

Each reference number is followed by the date or date range of the granting or confirmation of the original charter

B indicates that the charter contains one or more Old English boundary clause

METEOROLOGICAL REPORT FOR SHANKLIN, ISLE OF WIGHT FOR THE YEAR 2004

Clive Cooper

Abstract

Shanklin Weather Station was established approximately 56 years ago. It is classed as a Health Resort Station and is owned and maintained by the Isle of Wight Council. The station is situated at The Mead, a park area just past Shanklin 'Old Village' towards the outskirts of the town and is 50 feet above sea level. The station is a simple one consisting of a 5" standard rain gauge and a Stevenson's Screen equipped with four thermometers. Readings and observations are taken twice daily at 09.00GMT and 17.00GMT. The Campbell Stokes recorder is located on the roof of Shanklin Theatre which, at 180 feet above sea level, is the highest point in the town. Readings here are taken at 17.00GMT. I have access to some old Weather Diaries and all averages, etc. refer to the period 1983-2004.

TEMPERATURES

The yearly mean temperature was 11.3°C and was 0.6°C above the long-term average. 2004 was marginally warmer than 2003 by 2/100 of a degree, making it the 5th warmest year since 1983. The months with the highest positive anomalies were June with 1.4°C, January with 1.1°C, April and September each with 1.0°C. There were two months with a negative anomaly; March with 0.1°C and July with 0.6°C. Overall the mean minimum temperature was 0.7° above the yearly average and the mean maximum was 0.5° above the yearly average.

The highest temperature of the year was 26.8°C and occurred on 15th June. There was a total of 29 days (1 day less than the long-term average) when the temperature reached or exceeded 21.1°C (70°F): - 2 in May, 6 in June, 6 in July, 8 in August and 7 in September. The lowest maximum daytime temperature of 4.7°C was recorded on 25th February and the 26th December. The highest overnight temperature was 17.5°C and was recorded on the 3rd August. The lowest overnight minimum temperature was –3.8°C on 2nd March. There was a total of 18 air frosts, defined as a temperature below 0.0°C, 3 in January, 8 in February, 5 in March and 2 in December. The latest frost was recorded on 10th March. The first frost of the autumn was recorded on 26th December. This was the fifth consecutive year without an air frost being recorded in November at Shanklin.

RAINFALL

The rainfall for the year 2004 totalled 773.2mm representing 88% of the long-term average. 2004 was the driest year since 1996. There were 162 days with measurable rainfall. The five months with above average rainfall were August with 90.8mm, April with 85.6mm, July 53.5mm, October 144.4mm and January with 108.9mm. This represented 186%, 142%, 125%, 122%, and 110% respective positive anomalies. The seven months with below average rainfall were November with 35.2mm, February with 24.0mm, June with 23.9mm, September with 43.0mm, May with 32.7mm, March with 47.9mm, and December with 83.3mm, This represents 31%, 36%, 52%, 57%, 71%, 75%, 80%, respective negative monthly anomalies.

An amount of rainfall reaching or exceeding 25.4mm(1 inch) in a 24hr period ending at 09.00GMT, occurred on one day; 18th December with 30.1mm.

SUNSHINE

The total sunshine hours for 2004 was 2011.2 which represents 107% of the long-term average. The sunshine for the three summer months, June, July and August totalled 780.5hrs. The sunniest

month of the year was June with 295.0 hours, representing 123% of it's long-term average. During 2004 there were eight months with above average sunshine. The months with the highest sunshine anomalies were June with 123% LTA (295.0 hours), January with 122% LTA (83.6 hours), March with 120% LTA (148.6 hours), September with 116% LTA (196.3 hours) and May with 114% (272.6 hours). The four months not to attain their monthly average were July with 97% LTA (245.5 hours), October with 96% LTA (118.4 hours), November with 80% LTA (64.3 hours) and December with 92% LTA (53.8 hours). The sunniest day of the year occurred on the 21st June when 15.4 hours of sunshine was recorded.

Between the 1st May and 30th September there were 65 days on which over 10 hours of sunshine was recorded. This is seven days more than the long-term average.

MISCELLANEOUS PHENOMENA

Thunder

Thunder was heard on 14 days compared to the long-term average of 10; 1 in February, March, April, May, 2 in June and July, 5 in October and 1 in November.

Hail

Hail was recorded on 13 days; 2 in January, February, and April. 6 in March, and 1 in October.

Sleet / Snow

Sleet and/or snow fell on 9 days: 1 day in January, 5 days in February, 2 in March and 1 in November. The falls were mainly light in Shanklin although snow was observed lying on two days 30th January and February 27th.

Gales

Gales occurred on 24 days during the year, 4 in January, 4 in February, 3 in March, 1 in June, 1 in July, 2 in September and 9 in October.

MONTHLY WEATHER SUMMARY – 2004

MONTH	AVERAGE TEMP.	MEAN MAX.	MEAN MIN.	RAINFALL	SUN HOURS
JAN	6.7	9.1	4.4	108.9	83.6
FEB	6.1	8.7	3.6	24.0	94.7
MAR	6.9	9.9	3.8	47.9	148.6
APR	9.5	12.8	6.1	85.6	198.4
MAY	12.7	16.5	8.9	32.7	272.6
JUN	15.9	19.5	12.3	23.9	295.0
JLY	16.2	19.3	13.1	53.5	245.5
AUG	17.7	20.6	14.7	90.8	240.0
SEP	15.9	19.1	12.8	43.0	196.3
OCT	12.5	15.1	9.8	144.4	118.4
NOV	9.2	11.6	6.8	35.2	64.3
DEC	6.9	9.5	4.3	83.3	53.8
YEARLY FIGURE	**11.3**	**14.3**	**8.4**	**773.2**	**2011.2**

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Contents