

The Orkney Naturalist



**BULLETIN OF
THE ORKNEY
FIELD CLUB**

2003

Orkney Field Club

Founded in 1959



Aim: To encourage the study and causation of the natural and culture heritage of the County

OFC OFFICE HOLDERS

President: Elaine R Bullard

Vice-presidents: Mildred Cuthbert Ted Kellock

Officers (2003)

Peter Ford	Chairman
John Crossley	Vice-chairman
Kate Barrett	Secretary
Dennis Paice	Treasurer/Membership Secretary
Alison Skene	Junior Membership

Committee:

Lynda Bartlett	Jeff Barrett
Chris Booth	Sally Hallam (co-opted)
Sidney Gauld	Dick Matson
David Peppitt	

SUBSCRIPTIONS (2003): Adults £10, Family £15, Concessionary £6, Student £3, Juniors £2.

Membership Secretary: Dennis Paice, Ardleigh, Dounby, tel. 771535, who can also provide copies of the Club Constitution.

CLUB NIGHTS are usually held in Kirkwall on the third Friday of the month, with talks, slides, demonstrations and discussions. All are welcome. Meetings are advertised in the Orcadian under Club/Society notices and on Radio Orkney.

FIELD MEETINGS are held approximately monthly to a wide range of locations, including the outer isles.

Orkney Field Club was a partner of the Orkney Biodiversity Records Centre, which enters records of Orkney species, sites, habitats, etc., into its database. This valuable data is available to all interested parties. The Biological Recording Sub-committee, made up of the Orkney County Recorders, welcomes and encourages amateurs to participate in the collection of data. The Club promotes, and is actively involved in, conservation by means of a native trees plantation, reserves, study and fieldwork.

NEWSLETTERS: normally sent out three per year, free to members. These give Club news, information, and programmes for activities and Junior's notes.

JUNIOR MEMBERS: special adventure activities, challenges and an indoor programme are offered.

RESOURCES: these include the Library Folder in the County Library Reference Room. This contains copies of wildlife publications and OFC committee meeting minutes. The Archives include slides, equipment and textbooks. Members also have access to a comprehensive range of reference books, and equipment, including microscopes, in the Orkney Biodiversity Records Centre, also situated in the Library.

PRESIDENTS LETTER

"There's so much else going on" is the frequent apology for poor participation in many Club activities. But of course, the answer to that must be "we do it better" After all, we do. But is that how some of our own members, not to mention some of the public, actually see us? As your President I hear comments on the one hand, that we are too "specialist" and unwelcoming to beginners and, on the other, that we are far too amateurish to be taken seriously. Of course, there always have been and always will be, those who despise the true amateur, however skilled. I think there may be some truth in the impression that we are unfriendly. In our early days, even when numbers were reaching the 80 mark, we all knew each other. How many members nowadays would know a member of the Committee by sight and, indeed, how many members do those on the Committee know?

Without being "biggy" we could publicise ourselves a bit better. Sometimes, walking around Town, I wonder where, if they wanted to find out about the Club, would they look? Where would you look if you knew nothing about the Club except that you were interested in wildlife and conservation and would like to meet those with similar interests? Or if you were interested but a complete beginner?

Thanks to OBRC, the Club now has some excellent publicity through the Centre's Web site but we need it everywhere. Not everyone uses the Internet. The series of Training Courses now held every year are also attractive and successful, but not everyone has enough time to spare two or three consecutive days, and the Club can, and does offer much help on a short-term basis. But that should be better known and those "new" people who do turn up should be made to feel at home. The Club could appoint a special Publicity person but true welcome must be offered by every member and, remember, it works two ways. If you feel you are ignored at a meeting, just make yourself known.

EDITORIAL.

The Editorial Team would like to thank all contributors to this Bulletin. This year's copy includes many firm favourites as well as some new contributors.

OBITUARY

Maurice Hayes passed away on 18th October 20022 at his Burray home. Maurice joined the Field Club almost as soon as he settled in Orkney, after taking early retirement many years ago. Soon Maurice became a committee member and served some time as vice chairman. His main interest was in birds, although he took a keen interest in, and was concerned for, the welfare of all forms of wildlife. He was a very active supporter of the anti seal cull campaign. Latterly, he was Chairman of the Orkney RSPB members' group until ill health forced him to retire over a year ago. The Club has reason to be grateful for Maurice's services he will be greatly missed.

SALT N' STENNESS

M Thomson

During 2002, staff from the International Centre for Island Technology in Stromness, have been out on the Loch of Stenness, the UK's largest coastal lagoon and candidate Special Area of Conservation, working to up-date the considerable historical information on this dynamic and interesting environment. As the results from these surveys become available it is possible to reflect on historical data to see if and how the environment of Stenness is changing. Salinity patterns in Stenness are rather unique and have a strong influence on the ecology of the loch, so it is appropriate to consider if this most characteristic aspect has changed much over the years.

Full strength seawater has a salinity of approximately 34 parts per thousand (ppt). Surface measurements taken from Stenness during 2002 indicated that salinity increased from a minimum of around 7ppt in March to around 23ppt in late August/early September before decreasing to 10ppt in December. This seasonal rise and fall in salinity reflects the variation in freshwater input to Stenness, via the Loch of Harray and several large burns, which is much greater in winter than summer. These values are representative of the majority of Stenness surface waters, although there are localised variations such as at the Brigs of Waithe and Brodgar.

There is some evidence that salinity levels in Stenness have increased. The earliest records for salinity in the loch come from a study conducted in July 1936 by E.A.T.Nicol. She recorded salinity values ranging from 14-17ppt. In July 2002, salinity ranged from 20-21ppt. This alone may suggest a change has occurred, but a degree of caution should always be used in comparisons between different workers where sampling methods may vary. These difficulties can be overcome, however, with the use of more modern methods to examine salinity change. In the same way that climatologists use ice cores to study climate change, sediment cores collected from the floor of Stenness loch in July last year can be used to study changes in the aquatic environment of Stenness, albeit on a shorter time-scale. Examination of the top slice of the core (current conditions) gave a salinity estimate of 20-30 ppt that matches current conditions quite nicely. Analysis of the sediment slice at the bottom of the core indicated salinity, around 10-20ppt, possibly lower. No dating has been carried out on these core samples but it is thought that the sample from the bottom of the core could be up to 70 years old. Further analysis of the middle sections of the core would indicate if this change has been gradual or occurred more suddenly.

What could have caused salinity to increase during this period and has this had any effect on the Stenness environment? One explanation, which has been suggested, is the construction of the Churchill Barriers. The presence of the Barriers may result in higher high tides within Scapa Flow, as water flooding into the Flow can no longer escape out through these channels. Higher high tides would mean a greater seawater input to Stenness thus higher salinity. This is purely speculative, as no data exist to underpin this theory, although folk in Stromness do comment that houses along the waterfront flood with greater frequency these days!

The installation of the wooden flaps on the Brig of Brodgar has also been considered a possible cause of change. These were installed in 1968 on the recommendation of Government staff at the Freshwater Fisheries Laboratory after several fish kills in the loch of Harray had decimated trout stocks. The cause of these kills was a toxin-producing marine alga, *Prymnesium parvum*, and it was thought that the most practical way of preventing future blooms was to prevent the influx of saltwater from Stenness to Harray. The flaps work in

one direction, closing when the water level in Stenness is higher than in Harray, but swinging open when Harray is higher allowing freshwater to flow into Stenness in the usual fashion. Although the flaps did succeed in reducing saltwater input and lowering salinity levels in Harray, their mode of operation does not suggest that they could have had any impact on salinity levels in Stenness.

Whatever the cause, salinity levels in Stenness seem to have risen slightly, but has this affected the flora and fauna of the loch? Species richness (the total number of different species) seems to be increasing, although we must again take into account variations in method and expertise between different workers. Much of this increase can be attributed to the many new species of algae identified in the loch following a visit of the British Phycological Society in 1973. Invertebrate numbers identified between the different studies seem to be constant at worst. The productivity of the trout fishery declined severely at some point in the 1900s, although it is unlikely that a small increase in salinity could have caused this.

Increasing numbers of some species may however, mask the disappearance of others. Notable amongst these absentees is the bearded stonewort, *Chara canescens*, which was first recorded in 1920 and several times thereafter until 1926. Despite several surveys, it has not been found since. Before its recent discovery at a site in the Western Isles, these were the only records for this species in Scotland. It is considered endangered in the UK and in 1992 was added to Schedule 8 of the Wildlife and Countryside Act 1981. Another possible disappearance is that of the bird's-nest stonewort, *Tolypella nidifica*, which was last found in 1994. These two stoneworts are sensitive to salinity variations and it is possible that even a small increase may have been sufficient to wipe out the Stenness populations. Conversely, an increase in salinity may have allowed other species to extend their range in Stenness. The seaweed, *Fucus serratus* (serrated wrack), was found only at the Brig of Waithe in 1936. However, it is now found abundantly all round the loch.

Salinity is a fundamental controlling factor on life in Stenness, but not the only one. There are other influences that can have an equally significant impact. Amongst these are nutrient levels (variations in which could also be implicated in the disappearance of the stoneworts). Dissolved nutrients flow into Stenness in seawater and in freshwater. Some are naturally derived but are augmented by agricultural and sewage discharges. It is likely that nutrient inputs to Stenness and its neighbouring lochs have increased over the 1900s. The effects of increased nutrient levels can be seen in various aspects of the ecology of Stenness, perhaps more acutely in Harray. So, while the salinity story in Stenness is rather unusual, one must be careful to consider all possible environmental parameters when examining historical changes in the plant and animal communities.

BIODIVERSITY AND HABITAT FIELD COURSES 2002

Effy Everiss

Orkney Biodiversity Record Centre (OBRC) in conjunction with Orkney Field Club (OFC) and Scottish Natural Heritage (SNH) has for the past two years co-ordinated a series of courses on species and habitat survey and identification within Orkney. The courses aim to add to the knowledge of Orkney's biodiversity, to develop on-going species and habitat recording and monitoring, to provide and disseminate the data acquired, especially through

OBRC. The training should develop a local skills base with a capability to carry out specific survey work both voluntarily and on a commercial basis. These activities are open to all members of the public both from within Orkney and nationally, the courses were actively publicised and the response was excellent.

Three very different courses were held as follows:

Otters and their ecology- How to be an otter detective (17-19 May 2002)

The otter is a UK priority species that has a small resident population in the county and it was hoped that the course would add to the local knowledge of this elusive species. Dr. Paul Yoxon of the International Otter Survival Trust, based in Skye instructed participants in the skills and the techniques required to detect and monitor otters in the wild. The course began with an introductory lecture and slide presentation on otters, their ecology and the science of detection. Paul showed slides of the conservation work that he carries out on Skye and the 'Otter rescue' programme for ill and injured otters. The following day there were several site visits to see the otter tracks and signs and collect otter spraint, which were taken back to the laboratory for analysis. Spraint and tracks were found at Durkadale, Loch of Vastray and the Harray Picnic site, where a lying up holt was also located. The spraint was carefully washed with water mixed with denture cleaner then sieved and keys used to identify the contents. The main items on the average Orkney otter menu include butterfish, eels and trout. Late night 'otter watches' were carried out at the Barnhouse hide, Stenness; Ring of Brodgar and the Harray Picnic site, but alas no otters were seen. Paul plans to return to Orkney in the near future to carry out a more comprehensive investigation into the status of otters in Orkney.

Phase 1 habitat survey with an introduction to NVC (National Vegetation Classification) (29-31 July 2002)

Last year Adrian Davis conducted an excellent weekend course on Phase 1 habitat survey and this year we welcomed him back to provide a review of Phase 1 and introduce participants to the techniques of NVC. Meeting on the first day at Orkney College the course started with a brief update on Phase 1 followed by an introduction to the techniques used for NVC. Adrian then compared the two methods and explained the complexities of their application in mapping habitats. There was then the opportunity for everyone to get out their crayons and return to their childhood to spend a happy hour or so colouring in maps with (hopefully) the correct habitat colours. The participants met on the second day at the Hobbister RSPB Reserve in Orphir divided into groups and carried out practical surveys on specific stands of vegetation within the reserve. The results of each group were compared and a lively discussion ensued of the method and the problems associated with carrying out consistent and comparable fieldwork. The NVC classification system relies in many cases on the accurate identification of bryophytes that was the main weakness for the majority of the participants, and this would need to be addressed before accurate classification could be completed with confidence. With growing assurance the teams then undertook another batch of surveys on the old grassland at Scorradaie in Orphir. The final day was spent at North Flaws, John Crossley's farm in South Ronaldsay. Here, once again the group divided into teams and carried out surveys on an area that was looked at last year for Phase 1. The results were compared between the groups and it was possible to make an active comparison of the two methods.

Aquatic Macrophytes (17-18th August 2002)

Nick Stewart (the national stonewort recorder) tutored this course, he is very familiar with the Orkney aquatic flora have visited Orkney on numerous occasions for survey work.

Orkney has a very rich and interesting aquatic flora of national importance, especially the *Potamogetons* (pondweeds) and *Charophytes* (stoneworts) and include some nationally rare and UKBAP species. This was an excellent opportunity, greedily taken up by local botanists to add to their knowledge and learn the tricks and techniques needed to identify the more difficult species from a national expert. Nick is an excellent tutor with a refreshing and natural talent for simplifying botanical problems and eliminating jargon. The group visited and paddled in many of the mainland lochs, pools and ditches returning to the laboratory each day with a wide variety of specimens with which to practise their newly acquired skills. On the second day the sight of our much-respected tutor slowly sinking up past his waist in a bog caused some alarm amongst the group. It seems one of the most important techniques aspiring aquatic macrophyte experts need to learn early on is survival. The grapnel usually used to extract deepwater plants was thrown to shore and the rope used to extract the deepwater tutor. Immunity to dampness and the cold seems to be the second most important trait!

Orkney has a wealth of freshwater habitats with over 151 lochs and lochans and 15 brackish sites and are very important both nationally and locally. The contribution to the scenic beauty, their role in the sport fishing industry and maintaining the diversity of bird populations makes them essential components of the tourist industry and the material wealth of the isles. They are very vulnerable to pollution from sewage effluent and agricultural sources leading to enrichment due to nutrient loading, the resulting increase in plant production may reduce the water plant diversity and cause algal blooms, which has devastating effects on all freshwater life. There were strong indications on visiting these sites that enrichment pollution is already affecting the Orcadian water bodies and although some of this may be from dispersed domestic sources, there has also been a marked increase in the fertiliser applied to land catchments in recent years. This is having a noticeable affect on the aquatic biodiversity.

Nick spent over a week in Orkney carrying out project work on the Lochs of Harray and Stenness. Most evenings were spent surveying a large number of aquatic sites on mainland Orkney that resulted in many new records and updating of older ones including records of Nationally Scarce, BAP priority and Red Data Book species. These are reported in the vascular plant and stonewort reports in this bulletin.

Many thanks to Scottish Natural Heritage, Orkney Field Club, Orkney Biodiversity Record Centre and Orkney College for supporting the courses, and the generosity of local landowners for allowing access to their land. The courses are a co-operative venture between these organisations and the co-ordination is mainly on a voluntary basis, so special thanks must go to those participants, especially Ali Skene who went to such lengths to make sure the courses ran smoothly on the day. Without the help of these 'volunteers' these classes would be very difficult to run. The support and guidance of the tutors, most of who waived their fees was generous, valuable and very much appreciated. The courses have without a doubt added to the skills base of local naturalists, are very popular and as a result the level of recording within the county has increased with the added bonus of the courses being such good fun to do!

STONEWORT RECORDS 2002.

Effy Everiss

This has been a really superb year for stonewort (*Charophyte*) recording in Orkney. Nick Stewart the national recorder for stoneworts visited Orkney in the summer in order to undertake contractual work for ICIT in respect to the SNH funded survey of the Stenness and Harray Lochs. During his stay Nick conducted an excellent weekend course on 'Aquatic Macrophytes' (see the report on Biodiversity and Habitat courses in this bulletin). He spent most of his evenings either in the laboratory or out in the field recording as many freshwater and brackish sites as was possible (with me in tow) in the time available. As a result of the course and diligent recording we have 86 charophyte records this year, with many new sites and updates of rare species records. Nick refound *Chara rudis* (Red Data Book, Rare) in the Mill of Rango dam. This site has records for eight stonewort taxon in total, with recent records for six, making this a key site nationally. We had the first Eday stonewort record and six species recorded in the Loch of Clumly and quarry.

Although Orkney has a rich and diverse population of stonewort species there are a few more that occur in Shetland and/or Caithness or the Western Isles that have yet to be recorded in Orkney. These include *Nitella translucens* and *Nitella mucronata* so every stonewort site is worth looking at and recording. The spores can remain dormant for a long time in the sediment and are easily transported by birds and mammals or even blown in the wind. *Tolypella glomerata* may occur as a winter ephemeral in inundated loch and quarry margins and personal experience has found that some stoneworts seem to grow particularly well in winter when competition from other water plants is reduced. This may also be a reflection of the mild Orkney winters and may contribute to the success of stoneworts in brackish Atlantic peripheral locations. They can also occur as transient species in the natural succession of a water body, and for this reason, relatively recently created ponds and ditches are worth investigating. There is one old, possibly erroneous record for *C. baltica* (Red Data book, Vulnerable) for Loch of Harray. This is a brackish water species with recent records in the Western Isles and again could be found in Orkney. Stoneworts often grow together and a smelly tangle at the end of the grapnel may reveal several species on close examination. They occur in extensive underwater meadows such as those of *Chara curta* (Nationally Scarce, BAP), around the margins of the Loch of Harray, or, conversely, you may find a few sparse strands of *Chara virgata* lurking under the cistern in a cattle trough. They seem very fond of the *Schoenus* flush/ mire sites in Orkney, especially in winter, I suspect they dry up and are more or less dormant in the summer in some of these sites. In fact, once you know what they are, they can be recognised in many wet sites and are usually overlooked. With the rich diversity of damp/aquatic habitats in Orkney, and the possibility of finding new sites for extremely rare species, or even new species, for the county, the potential for local folk to make exciting new discoveries is enormous. So do look, no specimen will be turned away, ridiculed or ignored! If you cannot get a specimen of a suspected stonewort please let us know of the site so we can check it out.

Many thanks to Nick Stewart for his dedication to his art, the time he has contributed to recording the Orcadian aquatic macrophytes, and patience in teaching the enthusiastic local botanists who participated in the Aquatic Macrophyte Course. I am indebted to Neil and Rosemary McCance, Kathleen Ireland, Ethel Mowat, Louise Fortune and Barry Jones, for standing by whilst I grovelled in the mud and paddled in the deep. Let's hope 2003 is as good as 2002 for Orkney stoneworts.

ORKNEY STONEWORT RECORDS 2002

<i>Chara vulgaris</i>	Below Thunder Breck, Yesnaby, HY23231450, 28-Dec-02, (EE)
<i>Chara virgata</i>	Braebuster Ponds, Hoy, HY225036, 01-Jun-02, (EE)
<i>Chara aspera</i>	Burn of Sowadee, Yesnaby, Sandwick, HY23201455, 28-Dec-02, (EE)
<i>Chara virgata</i>	Burnhouse Hatchery, Hoy, ND29659545, 05-Mar-02, (BJ) new site
<i>Chara virgata</i>	Burnhouse Hatchery, Hoy, ND29659545, 05-Mar-02, (BJ)
<i>Chara virgata</i>	Gairy Loch East, S. Ronaldsay, ND468854, 18-Aug-02, (NFS & OFC)
<i>Nitella flexilis</i>	Gairy Loch East, S. Ronaldsay, ND468854, 18-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Gairy Loch West, South Ronaldsay, ND466853, 18-Aug-02, (NFS & OFC)
<i>Chara aspera</i>	Gairy Loch West, South Ronaldsay, ND466853, 18-Aug-02, (NFS & OFC)
<i>Chara vulgaris</i>	Gairy Loch West, South Ronaldsay, ND466853, 18-Aug-02, (NFS & OFC)
<i>Nitella flexilis</i>	Graemsay Quarry, HY259052, 06-Oct-02, (EE)
<i>Chara vulgaris</i>	Graemsay Quarry, HY259052, 06-Oct-02, (EE)
<i>Chara virgata</i>	Graemsay Quarry, HY259052, 06-Oct-02, (EE)
<i>Nitella flexilis</i>	Graemston loch, S. Ronaldsay, E. end, ND451846, 18-Aug-02, (NFS & OFC)
<i>Chara aspera</i>	Graemston loch, S. Ronaldsay, E. end, ND451846, 18-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Graemston loch, S. Ronaldsay, E. end, ND451846, 18-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Loch of Boardhouse, E. end, HY279252, 14-Aug-02, (NFS & EE)
<i>Tolypella glomerata</i>	Loch of Clumly Quarry, Sandwick, HY257161, 20-Aug-02, (NFS & EE) New site
<i>Chara vulgaris</i>	Loch of Clumly Quarry, Sandwick, HY257161, 20-Aug-02, (NFS & EE) New Site
<i>Chara contraria</i>	Loch of Clumly Quarry, Sandwick, HY257161, 20-Aug-02, (NFS & EE) New site
<i>Chara aspera</i>	Loch of Clumly, S.side of E. end, HY257163, 20-Aug-02, (EE)
<i>Chara virgata</i>	Loch of Clumly, S.side of E. end, HY257163, 20-Aug-02, (EE)
<i>Chara curta</i>	Loch of Clumly, S.side of E. end, HY257163, 20-Aug-02, (EE)
<i>Chara contraria</i>	Loch of Harray, Picnic site, HY3114, 17-Aug-02, (NFS & OFC) Update
<i>Chara curta</i>	Loch of Harray, Picnic site, HY3114, 17-Aug-02, (NFS & OFC) Update
<i>Chara aspera</i>	Loch of Harray, Picnic site, HY3114, 17-Aug-02, (NFS & OFC) Update
<i>Chara virgata</i>	Loch of Harray, Picnic site, HY3114, 17-Aug-02, (NFS & OFC) Update
<i>Chara contraria</i>	Loch of Sabiston, E.side near Houseby, HY2922, 17-Aug-02, (NFS & EE)
<i>Chara aspera</i>	Loch of Sabiston, E.side near Houseby, HY2922, 17-Aug-02, (NFS & EE)
<i>Chara aspera</i>	Loch of Skail, Sandwick, NE side, HY2418, 17-Aug-02, (ERM et al)
<i>Chara curta</i>	Loch of Skail, Sandwick, NE side, HY2418, 17-Aug-02, (ERM et al)
<i>Chara aspera</i>	Loch of Skail, Sandwick, NW corner, HY2418, 14-Aug-02, (NFS & EE)
<i>Chara contraria</i>	Loch of Skail, Sandwick, S side of E. end, HY2417, 14-Aug-02, (NFS & EE)
<i>Chara curta</i>	Loch of Skail, Sandwick, S side of E. end, HY2417, 14-Aug-02, (NFS & EE)
<i>Chara aspera</i>	Loch of Skail, Sandwick, S side of E. end, HY2417, 14-Aug-02, (NFS & EE)
<i>Chara vulgaris</i>	Loch of Tankerness, E.end of S.E. end, HY5209, 20-Aug-02, (NFS & OFC)
<i>Chara aspera</i>	Loch of Tankerness, E.end of S.E. end, HY5209, 20-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Loch of Tankerness, E.end of S.E. end, HY5209, 20-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Loch of Wasdale, N.end, HY342152, 17-Aug-02, (NFS)
<i>Chara contraria</i>	Loch of Wasdale, N.end, HY342152, 17-Aug-02, (NFS)
<i>Chara aspera</i>	Loch of Wasdale, N.end, HY342152, 17-Aug-02, (NFS)
<i>Chara vulgaris</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) Update
<i>Tolypella glomerata</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) New site
<i>Chara aspera</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) Update

<i>Chara contraria</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) Update
<i>Chara curta</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) Update
<i>Chara rudis</i>	Mill dam of Rango, Sandwick, HY2518, 14-Aug-02, (NFS) Update
<i>Chara virgata</i>	NE of Winksetter, Harray, HY342167, 20-Aug-02, (NFS & EE) New site
<i>Chara virgata</i>	NW of two lochs S. of S. Liddel, ND461835, 18-Aug-02, (NFS & OFC)
<i>Nitella flexilis</i>	Ocklester, Holm, HY53020267, 23-Sep-02, (EE, RMc & SG) Update
<i>Chara vulgaris</i>	Ocklester, Holm, HY53140271, 23-Sep-02, (EE, RMc & SG) Update
<i>Chara virgata</i>	Ocklester, Holm, HY53140271, 23-Sep-02, (EE, RMc & SG) Update
<i>Chara aspera</i>	Peerie Water, Evie, HY334272, 21-Aug-02, (EE)
<i>Chara aspera</i>	Peerie Water, Evie, HY334272, 21-Aug-02, (EE)
<i>Chara virgata</i>	Pools N. of Sandy Loch, Hoy, HY22760366, 21-Sep-02, (EE)
<i>Chara vulgaris</i>	Pools N. of Sandy Loch, Hoy, HY22760366, 21-Sep-02, (EE)
<i>Chara virgata</i>	Pools N. of Sandy Loch, Hoy, HY22760366, 21-Sep-02, (EE)
<i>Nitella flexilis</i>	Pools N. of Sandy Loch, Hoy, HY22440359, 21-Sep-02, (EE)
<i>Chara curta</i>	Pools N. of Sandy Loch, Hoy, HY22760366, 21-Sep-02, (EE)
<i>Chara vulgaris</i> <i>var. longibracteata</i>	Refuge Corner, Harray, HY33631549, 07-Dec-02, (EE & RMc)
<i>Chara virgata</i>	Refuge Corner, Harray, HY33631549, 07-Dec-02, (EE & RMc) New site
<i>Chara virgata</i>	Rotten Loch, Brims, Hoy, ND28918804, 20-Sep-02, (EE) Update
<i>Chara virgata</i>	Russadale Quarry, Stenness, HY334097, 05-Sep-02, (EM) New site
<i>Nitella flexilis</i>	Sandy Loch, Hoy, HY219033, 21-Sep-02, (EE)
<i>Chara virgata</i>	Sandy Loch, Hoy, HY22870360, 01-Jun-02, (EE)
<i>Chara virgata</i>	Sandy Loch, Hoy, HY219033, 21-Sep-02, (EE)
<i>Nitella flexilis</i>	Skail, Mill Pond, Eday, HY567326, 25-Aug-02, (EE & LDF) New site
<i>Chara vulgaris</i>	Syradale, Harray, HY34931595, 09-Nov-02, (EE)
<i>Chara virgata</i>	Syradale, Harray, HY353159, 09-Nov-02, (EE)
<i>Chara vulgaris</i>	Syradale, Harray, HY353159, 09-Nov-02, (EE)
<i>Chara curta</i>	The Loons, Birsay, HY253243, 17-Aug-02, (ERM et al)
<i>Chara virgata</i>	The Loons, Birsay, HY253243, 17-Aug-02, (ERM et al)
<i>Chara aspera</i>	The Loons, Birsay, HY253243, 17-Aug-02, (ERM et al)
<i>Chara contraria</i> ,	The Loons, Birsay, HY253243, 17-Aug-02, (ERM et al)
<i>Chara contraria</i> ,	The Loons, Birsay, pool by hide, HY247242, 17-Aug-02, (ERM et al)
<i>Chara aspera</i>	The Loons, Birsay, pool by hide, HY247242, 17-Aug-02, (ERM et al)
<i>Chara curta</i>	The Loons, Birsay, pool by hide, HY247242, 17-Aug-02, (ERM et al)
<i>Chara virgata</i>	The Loons, Birsay, pool by hide, HY247242, 17-Aug-02, (ERM et al)
<i>Chara aspera</i>	Trena Loch, S. Ronaldsay, ND465851, 18-Aug-02, (NFS & OFC)
<i>Chara virgata</i>	Trena Loch, S. Ronaldsay, ND465851, 18-Aug-02, (NFS & OFC)
<i>Chara aspera</i>	Vasa Loch, Shapinsay, HY472185, 16-Sep-02, (EE)
<i>Chara virgata</i>	Whaeness, Whiteglen, Hoy, HY246026, 18-Jun-02, (EE)
<i>Chara virgata</i>	White Glen Plantation, Hoy, HY245016, 28-Aug-02, (EE)
<i>Chara curta</i>	Whitemill, Sanday, HY685465, 22-Jun-02, (EE)
<i>Chara vulgaris</i> <i>var. papillata</i>	Whitemill, Sanday, HY685465, 22-Jun-02, (EE)
<i>Chara virgata</i>	Yelda Reservoir, Stromness Water Works, HY2310, 14-Aug-02, (NFS) Update

CONTRIBUTORS

Nick Stewart, NFS, Orkney Field Club/Aquatic Macrophyte Course, OFC; Eric Meek, ERM (thanks for the specimen!); Louise Fortune, LDF; Rosemary McCance, RMc; Barry Jones, BJ; Effy Everiss, EE; Sydney Gauld SG.

BRYOPHYTE REPORT 2002

Rosemary McCance

Although there were no new bryophytes found in Orkney during 2002, recording has been going on steadily. Looking at a distribution map of records on Mapmate¹, there is now a reasonable spread of records with the exception of Westray, Papa Westray and North Ronaldsay. I have one record for North Ronaldsay (thank you, John!). A total of about 300 records for 2002 were sent south to the National Recorder for bryophytes. Eric Meek and John Crossley have given me details of Schoenus flushes, which they have been recording for vascular plants. I am hoping to record the bryophytes in these flushes and have already started, with help from Effy Everiss. Any other helpers would be very welcome.

We are finding a fascinating selection of mosses including some which are tufa forming. People who were on the original bryophyte course with Martha Newton may remember the tufa with mosses on the cliff at Waulkmill. During last summer at the NVC course, I was encouraged to see that members of the course realised recognition of bryophytes could be very useful, and in some cases, was nearly essential to classify a habitat!

Thanks to E.R.Bullard, E.Everiss and C.Vasey for specimens received.

DO YOU KNOW YOUR HORSETAILS?

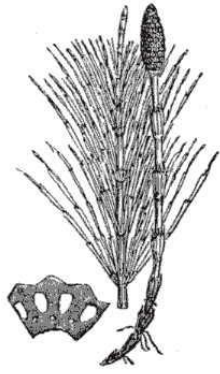
Elaine R Bullard

We have six known species and one known hybrid. A seventh, the Variegated Horsetail, is occasionally reported, usually by visitors, but so far, these have proved to be depauperate, forms of the Marsh Horsetail. The true plant may yet be found and several other hybrids are possible. One of our local species, the Shady Horsetail, is on the British Scarce Species list and another, the Dutch Rush, seem to have been introduced in the Lyness area during the WW 2. In all Horsetails, the spores are carried in terminal cones but only two, The Shady Horsetail and the Field Horsetail, carry their cones on separate, very pale or flesh coloured stems, which either die away, or become green and branched, later in the season.

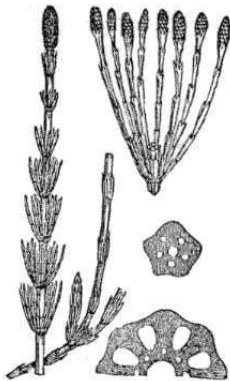
Important characteristics in diagnosing their differences are the branching, the size, shape and appearance of the leaf sheath, often in comparison with the stem sheath. These characteristics can be discerned by a careful examination of a section of the stem, best by at least x 5 magnification, although those with good eyesight may be able to detect the differences, if combined with other characteristics.

Never insult the Mare's-tail, which is a true flowering plant, by referring to Horsetails as "Mare-'s-tails."

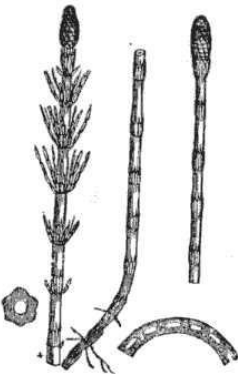
¹ MAPMATE© is a dedicated biological recording database.



Equisetum arvense, Field Horsetail, very common. Varied habitats including gardens from which it is impossible to eradicate. Most likely to be confused with the Marsh Horsetail but reels softer to the touch, has its lowest branch internode as long as or longer than the stem sheath and the stem has a small but definite central hollow.



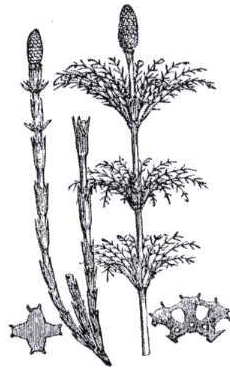
Equisetum palustre, Marsh Horsetail, superficially similar to the above and also common but favours damp or even wet places. Stem firm as its central hollow hardly exists and its lowest branch internode is conspicuously shorter than its stem sheath. Note, extremely poorly branched forms occur, usually in wet stoney places such as loch margins.



Equisetum fluviatile, Water Horsetail. Common and not always in standing water. Degree of branching very variable, especially in the very green fertile stems that grow and develop branches later in the season. A colony seen in spring can look quite different a few months later. Huge central stem hollow - mnemonic "flue".



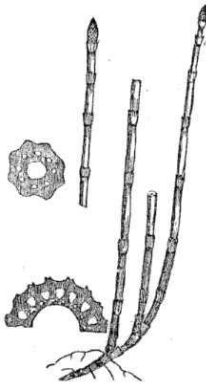
Equisetum x litorale. The hybrid between the last and the Field Horsetail. Probably far more common in Orkney man records show. Not at all easy to distinguish from the Water Horsetail except fairly early in the season when its shrinkled sterile cones are fairly obvious. Its central stem hollow is smaller - sorry no illustration available.



Equisetum sylvaticum, Wood Horsetail. To my mind, our prettiest Horsetail with slender branched branches often drooping gracefully. Prefers somewhat acidic and "woody" conditions such as bumside among heather and ferns. Near Kirkwall it is plentiful among the Scapa Gills.



Equisetum pratense, Shade Horsetail. Our most rare species, only known, but for a least 100 years, from one small area in Rousay. It is not easy to find even by those who know the exact position of the colony and I have a theory it may be susceptible, to late frosts. It is very like the Wood Horsetail but the branches are not again branched.



Equisetum hyemale, Dutch Rush. The Ferrylouper! Originally known near the Mill Burn in Hoy and around the Nowt Bield in Hoy. It is turning up in "new" sites and could be found anywhere - it is obviously fertile! This horsetail is quite, unmistakable. Unlike any of the others, it is evergreen so can be found in winter, it is never branched and was once used by the Dutch cabinet-makers for producing a polished surface to wood. Piece makes an excellent nail file.

In the illustrations, taken from an old book, some are given their earlier names. *E.limosumis* now *E.fluviatite* and *E.littorale* (minus its stem section) is now *E. x litoraie*. Normally *E.pratense* and *E.sylvaticum* would look more alike, but the stem and branch sections of all are pretty accurate.

NOT IN A TEST TUBE

Elaine R Bullard

Some years ago, at the very first Orkney Science Festival, a visiting lecturer strode on to the Town Hall stage brandishing a small test tube. "See", he said, "you need never worry again about losing your precious *Primula scotica*, we can now culture it in a laboratory from tiny pieces of tissue".

Sadly, some of the audience really did think this would get Orkney out of bothersome "conservation restrictions".

Even when we prefer our wildlife to be out of doors, most of us tend to look directly at whatever interests us at the moment and to put everything around it "out of focus", almost as though we really were looking at it in a test tube.

Primula scotica, for instance, has a set of "companion" plants associated with it which hardly vary from colonies at Yesnaby in Orkney, or Sandside Head in Caithness, both on Old Red Sandstone; Moclett in Papa Westray or Dunnet Links in Caithness, both machair, or the gritty schists of north Sutherland. In almost all these sites the plants growing with the primula will include red fescue, common bent, glaucous sedge, sea plantain, an eyebright and wild thyme.

It takes practice to consciously recognise "habitat" (most of the time we all probably do so unconsciously). It is also difficult to use words to describe habitat in a way that the next person will understand. Over the years there have been many attempts to standardise descriptions but there are at least half-a-dozen systems in regular use over the UK and Europe; all have their advantages and disadvantages and few are compatible with the others. Some are based entirely on the vegetation; others take edaphic and geomorphological conditions into account.

In Orkney at this time, three systems are used:

- National Vegetation Classification or NVC, for very detailed work;
- Phase 1 which matches NVC but is much simpler, (and, being so, more liable to subjective interpretation);
- "Broad Habitats" system, which does not tie up completely with the other two but is the required habitat description for our Biodiversity Audits and Action Plans.

All three systems have the disadvantage for us in Orkney, in that they were largely based on work carried out in the south. Hopefully, there will be a "northern" updating in time. The Corine system, largely used in the Continent, has the advantage of including boreal habitats. To use any of these systems in full requires a reasonably good ability to recognise all plants, mosses and lichens. This is off-putting for those interested in birds, animals and "creepy-crawlies", all of which need "habitat" as much as plants.

If wildlife conservation is to be carried out, the more thoroughly the required habitats in Orkney are known, the easier conservation will be. This means, that no matter what the creature is, some note of its Orcadian habitat is essential, textbook descriptions are not enough.

It is possible to use some very basic indications of habitat just by noting the most abundant common plants around. It is easy to see the difference between Plantations of trees and Natural woodland and scrub, and to recognise, the main tree or shrub species.

Tall Herb is the name often given to the heavy growth of ferns and rushes that appear in many Orkney "dales".

Heaths and Mires. Heather is abundant in Orkney. It may include Cross-leaved heath, Bell Heather and Crowberry and the predominant one can be noted. It is also easy to see if it is wet, probably on peat, or if it is dry with little peat obvious. Heaths on really deep peat are technically Mires. On less deep peat they can be distinguished as Wet Heath and Dry Heath. Another distinction worth noting is if these heaths are Maritime or Montane.

Mire also technically covers a number of very wet vegetated habitats, which can include Flushes and Springs, and Fens. To differentiate these from Swamp, Marginal vegetation and Inundation vegetation may be difficult, without some knowledge of botany, but any attempt is better than nothing.

Open Water. This is water beyond the limit of Marginal Vegetation although the presence of submerged plants may be important for other forms of wild life. It can be noted if it is Still or Moving and even if it is large or small area. Further distinctions can be left to a specialist.

Grassland is a bit difficult as it may not be easy to distinguish between true grasses and other grass-like plants such as sedges and rushes; pure natural grassland is rare in Orkney.

Grassland of various kinds is the most abundant type of habitat in Orkney. Some may be obviously Improved Grassland, Semi-improved Grassland or even Poor Semi-improved Grassland (what most of us would term "rough grazing") and Marshy Grassland is also included here. It must not be forgotten that Orkney has a huge area of grassland, some almost "natural" and rich in wildlife, in its roadside Verges.

Coastland habitats can be divided into Cliff and slope, Intertidal, Saltmarsh Shingle, Boulders, and Sand dune. The last can be as dune, or wet dune slack or dune grassland - in Orkney "Links" or technically "Machair", when heavily influenced by blown shell-sand. Rock exposures and waste are lumped together as a general classification and often support similar wildlife but can be artificial or natural and the latter may be Inland Cliff or Scree.

Last but not least, for they can support wildlife, are the Built-up areas, Cultivated and Disturbed land, Boundaries and, when nothing else seems to apply, Other Habitat.

You may find your own biological recording database uses slight variations of these but next time you submit any record to OBRC, please try to add a habitat note.

A NEW RUSH SPECIES FOR ORKNEY

Elaine R Bullard



Juncus ambiguus

D.R.McKean, Curator of the Herbarium at the Royal Botanic Garden, Edinburgh has drawn my attention to an Orkney specimen in their Herbarium, which was thought to be *Juncus bufonius*, the Toad Rush, by the late James Sinclair. Who collected it in the Outer Holm of Ire, Sanday, on 25th August 1937. It was found growing in "Mud in dried up pools".

It is now renamed as *Juncus ambiguus*, the Frog Rush. Mr. McKean says it should be easy to distinguish from the Toad Rush by its multiheaded inflorescences. It probably likes similar habitats, and we may have been overlooking it. It would be desirable to re-find it, perhaps in other places.

PLANT RECORDS - 2002

Elaine R Bullard

The publication of 'The New Atlas of the British and Irish Flora' is surely the most important "botanical event" of 2000. And Orkney's many dark blue circles on its species maps are something to be proud of. For an area with a comparatively limited number of active botanists we did very well. The only really serious Orkney error I have spotted is the odd omission of all our records for the larger Adder's-tongue Fern, *Ophioglossum vulgatum*. I had noted that omission from the final draft check and drew attention to it but somehow it

was still left out. We should remember, however, that much of the compilation of the Atlas was carried out by dedicated volunteers to whom we should be grateful for a massive piece of work.

At home, some of the ennui that seemed to follow the "final date" for our contributions to the Atlas has gone and there has been a marked revival in enthusiasm for plant recording. All the same, I have decided to cut out the conventional list of "Plant Records" this year. Almost ever since it has been included in the Bulletin it has concentrated on "new for square" or "update for square." It is now time to do some real recording, to see "how many" we have of our species, not just "present" or "absent", and if they are increasing or declining; to think about habitat, to explore new and often under-recorded parts of Orkney, and to try, if possible, to make separate lists of the plants in quite small areas or habitats, instead of only scoring off every plant once on a long walk. Of course, it is still well worth recording anything outstanding and we do need many more records or updates for our OBAP Priority List.

Lycopodium annotinum



It might be insidious to pick out any record or recorder for individual mention, but I cannot resist the wonderful record for the Interrupted Clubmoss, *Lycopodium annotinum*, which was found by four people almost simultaneously although two, came at it from one direction and two from another! Long lost from Orkney records, a visitor to Orkney a couple of years ago did re-find it but refused to disclose the locality. In what was probably this locality, a very small clump of plants was re-found in 2001, but the four found an absolutely enormous colony of what is one of the UK's "Scarce Species" and on our own Priority list. Congratulations!

Among other achievements was the "discovery" of a large and very rich wetland habitat, lists made of at least twelve "Schoenus Flushes" (plenty more to list), lots of ferns, some new and peculiar aliens, and, I suppose, we could call the Isles Verges project a botanical one.

Every single record that has been sent in has been entered into my database to be forwarded to OBRC as soon as MapMate and Recorder 2002 can "talk" to each other, which should be quite soon, except for a few which are awaiting specialist determination. Field records have not been the only source. Our good friend Douglas McKean of the Royal Botanic Garden, Edinburgh, has been re-examining Orkney material in the Herbarium and has found some "new" species and hybrids.

MAPMATE, a dedicated biological recording database, can also count as a new discovery although there are some now in Orkney who have used it for a year or more before coming here. But it has "taken on" surprisingly quickly being cheap and, once familiar with it, quick and easy to use. Its great advantage over the better known but not greatly loved "Recorder" is that it is a networking system. Users will be able to send their records via the Internet to their County Recorder, who will act as a "hub" to pass on all the records in the same fashion to Orkney BRC, without any need to re-type them. Better still, the "hub" will be able to send all, or a selection, of the total records, to all MapMate users who would like them.

Several of the Tutorials taking place in 2002 also produced some good records. I have lost count of the many records of Pondweeds - *Potamogeton* species - I have been entering in the database which were made by Nick Stewart and his pupils taking part in the Freshwater

Course - not to mention Stoneworts, see separate article. A number of these are Priority Species. An unexpected contribution was the large number of records for Autumnal Starwort, *Callitriche hermaphroditica*. This annual Starwort had appeared to be declining in Orkney in recent years, partly I thought, due to the pollution by agricultural run-off of many small pools in which I knew it. Several more interesting finds occurred during the Habitat Course. Records of rushes, sedges and grasses have not been very abundant. These may be thought of as unimportant, but we do need them so please do not overlook them. A short course on identifying the common species may be put on this year.

COMMON PLANT SURVEY

Effy Everiss

The Common Plant Survey is part of a three-year programme funded by the Heritage Lottery Fund under the auspices of Plantlife and The Botanical Society of the British Isles. The survey is the first phase of a long-term project to monitor what is happening to the wild plants of the countryside. Local volunteers carry out the fieldwork.

The idea is that volunteers survey a carefully chosen set of 65 of the United Kingdom's common plant species from random sampling plots in an area local to the surveyors' home. The plants are very easy (e.g. primrose) to identify from an excellent flower guide provided in the survey pack. These plants are indicator species representative of a wide range of habitats, and the data collected will be used to interpret the impact of environmental factors such as climate change, agricultural practice and human impact on each habitat. It is hoped that the survey will help to indicate where the greatest needs for conservation lie and in time provide the background data for sound reasoning to help us protect our wild plants.

The survey is very well thought out and the instructions are actually quite simple although the first reading is perhaps a bit alarming. After three cups of tea and a second careful re-read of the well laid out instructions confidence was restored, especially when each of the instruction 'steps' were considered separately.

You are allocated a random number and using this you locate a 1km square within which you live. You then collect data from two specially defined small plots (the centre and linear plot) and then the fun bit, five habitat plots of your own choosing. Simple allowances are made for water bodies, which can be a problem in Orkney.

I found that a bit of time working out my square and plots just using the map, ruler and pencil (plus more tea) in the comfort of a warm house made the actual initial fieldwork straightforward. My 'square' includes the Lochside, Overbigging and Quoyer area of Harray. I did not know any of the landowners but by an incredible stroke of good luck the first property called at for access permission was the holiday home of a wonderful man, Jim Walter who was in Orkney on holiday. Jim was born and brought up in this area of Harray and knows it intimately, his encyclopaedic knowledge of all the landowners and importantly who is renting what and when was indispensable. He was also very keen and interested in the survey grasping all the concepts very quickly. We sat and poured over the map and worked out site suitability, access and whom I would need to see for permission.

My centre plot is in a rather sterile intensively farmed field with grazing cattle and was a bit disappointing with no records for any of the selected plants, however this is important. The survey is long term; perhaps in several years time the same plot will be resurveyed, when the land use and flora may be entirely different. The linear feature was along the roadside verge and contained three of the selected species (plus attendant steaming bull). I chose a wide

selection of habitat types for the random plots, but made sure they were easy to locate from the topology bearing in mind that in the future it may not be the same person surveying the site. One is within the Harray Loch SSSI. I used the GPS to give reasonably accurate references for the sites and photographed them for prosperity. I marked the corners of plots with stones where feasible. There is a simple to use GPS available for public use from OBRC.

It took me about half a day to do the initial site set up, chat to Jim and survey, re-surveying a couple of months later only took about an hour, so taking part in this project is not an onerous task. The designers of the survey have gone out of their way to make it easy, user friendly and still remain scientifically credible; you do not have to be a botanist to do it! It would be nice if a few more folk in Orkney set up plots so we can truly be part of this national survey and future Orcadian naturalists have base data on which to continue the research. I am considering carrying out another set of sites next year, which will once again be in the Harray/Finstown area and would help anyone with the initial setting up of their sites if they want to have a go. One delightful aspects of this project is that you visit and find out about areas in your own locality that you may not know and you might meet some interesting neighbours!

To receive your survey pack please email: enquiries@plantlife.org.uk or phone 0207 8080118 and leave your contact details.

BUMBLEBEE RECORDS - 2003

John Crossley

The summer was of course another great one for bee watching, and knowledge of the distribution and behaviour of local species has increased accordingly. The general picture of distribution is now fairly clear (see 2001 and 2002 Bulletins), but it is good to get a first record for Eday of our Orkney speciality the great yellow bumblebee *Bombus distinguendus*, almost completing the list of North Isles that have this rare species.

Most intriguing record of the year was a small male bee found in Tankerness by Bob Adam. It was like the many other heath bumblebees *B jonellus* there except for a reddish-orange, not white, tail. A subspecies of *B jonellus* found in the Western Isles has a reddish tail, and another species, *B pratorum*, has the same colour patterning, including a red tail. *B pratorum* is common in the U K, and I have seen it at Castletown in Caithness, but it has never been recorded in the isles. The males of the two species appear to be inseparable, but then nobody ever had to separate them because they have never been found in the same place. The two national experts I consulted came to opposite conclusions. This is one to look out for in 2003, with the possibility of confirming a new species for Orkney.

Which leads on to some thoughts about migrant and vagrant bees. Certainly bees can fly long distances. There are two records only for *B distinguendus* in Shetland, both thought to be immigrants, and one on a ship in the middle of the North Sea! *B pascuorum* is a recent colonist and now very common. There is an isolated population of *B terrestris* on the north Sutherland coast, far from its nearest neighbours near Inverness. However, it is probable that the ranges of these insects expand and contract at the fringes with runs of good or poor summers, and isolated populations may be remnants or colonists. Climate change could alter the situation more radically.

Many of the records received for 2002 confirm recent knowledge about distribution, but add to knowledge of seasonal abundance and food plants, in particular. Improving recognition

skills perhaps account for many records for the previously little-recorded cuckoo bee *B bohemicus*. Males, strangely conspicuous by their almost silent flight, were plentiful in Tankerness House Gardens in July and August. Very few *B pascuorum* were recorded. It is a common species, but often very difficult to distinguish from the usually rarer *B muscorum*.

I received the following new records for 10 km squares:

B bohemicus, HY50, Toab (RGA); HY51, Tankerness (RGA)

B distinguendus, HY53, Eday (CJB)

B jonellus, HY54, HY52, Eday (CJB); ND19, Rackwick (CJB)

B lucorum, HY54, Eday (CJB)

B muscorum, HY52, Eday (JEC); ND38 (Swona) (RGA)

B pascuorum, ND29, Rackwick (CJB).

THANKS

To R G Adam and C J Booth for these records.

LEPIDOPTERA REPORT FOR 2002

S.V.Gauld

The weather this year was exceptional, being very wet up until April when the weather turned and became very dry throughout the summer with a very real possibility of wells running dry, this being a complete reverse of the weather that the south was having. How much this affected the number of migrants we saw is uncertain, there were no large movements of migrants but a steady trickle throughout the season with one exception when twenty Silver Y were recorded from one location on 27 August. Two new species was added to the Orkney list that of *Alucita hexadactyla* Twenty-plume Moth. There is the probability of a second *Orthosia cerasi* Common Quaker.

Along with the regular trap sites this year, two more were added; one in Kirkwall being run by C & J Booth, and one in Evie by A & S Knight. Also received were some records from Sule Skerry, which are detailed, in the following report.

REGULAR MIGRANTS SEEN DURING 2002

The first *Vanessa atalanta* Red Admiral was seen on 26 April and the species was then recorded regularly until 9 October, the last sighting 28 December was of one during a pantomime in the Sandwick Hall, when it was seen flying around over the audience's heads. *Phlogophora meticulosa* Angle Shades was first seen on 6 May with a few more records in June and first week of July. There was then a gap until the end of August with higher than usual numbers being seen through September and the beginning of October in traps and on sugar. *Pieris brassicae* Large White was first seen on the 6 May as well; they were on the whole only seen as singles through the season with no sign of any influx from outside Orkney. A *Cynthia cardui* Painted Lady was also first seen on 6 May. This species was seen regularly through the season including a peak in the latter half of August with the last record being 9 October. *Autographa gamma* Silver Y was first seen on 24 May. Sightings continued throughout June, followed by a gap during July and then reappearing once more from the beginning of August till the first week of October. Numbers seen in traps were on the whole in the low tens, with the highest count, 20 being recorded in the field on 27 August.

Two *Macroglossum stellata* Humming-Bird Hawk-Moths were seen with singles on 12 June and 12 August. Two *Udea olivalis* were taken by trap on 19 July, *Plutella xylostella* Diamond-back Moths were seen in small numbers from 19 July till 15 September with a peak of 10 in a trap on 11 September. One *Enrols occulta* Great Brocade was seen on 6 August. Four *Agrius convolvuli* *Convolvulus* Hawk moths consisted of singles on 24 and 28 August and 2 and 3 September. *Agrotis ipsilon* Dark Sword Grass was seen from 4 September till 29 September, in traps and on sugar. Four *Nomophila noctuella* Rush Veneer were seen between 3 and 30 September.

IN THE LIST THAT FOLLOWS THE FOLLOWING ABBREVIATIONS ARE USED

R	Resident		I	Immigrant		C	Recent colonist		U	Status Uncertain
V	Vagrant		C	Recent colonist		R?	Resident Uncertain			

NEW SPECIES TO ORKNEY

Ahicita hexadactyla Twenty-plume Moth (U), one taken at a window 28 August Quoyberstane, St Ola (SVG). This moth is seen throughout the UK mainland as far north as Caithness, the larvae feed on the flowers and mine leaves of honeysuckle; the adult is on the wing from August, hibernates through the winter and reappears in the spring.

Orthosia cerasi Common Quaker (R); a larva was found on the hair of a boy who was one of a group of children on the first meeting of the Hoy Young Rangers, that had been exploring the garden at Melsetter, Hoy on the evening of 26 July. The moth is recorded throughout Great Britain as far north as Caithness. The larva feeds on sallow, hawthorn, birch, and other deciduous trees from April - June, probably later in the north, and the adults are on the wing during March and April.

MOTHS AND BUTTERFLIES OF NOTE SEEN DURING 2002

Ypsolopha dentella Honeysuckle Moth (U); one taken by trap 15 September Quoyberstane, St Ola (SV Gauld). This is the second record for Orkney the first being on 15 September 1999 Quoyberstane, St Ola (SVG)

Agriphila straminella (R); seen on 13 July Sule Skerry (Mike Archer)

Udea olivalis (V); two taken by trap 15 July Bayview, Herston, South Ronaldsay (J&R McCutcheon). Were followed by a further two taken by trap 19 July Redland, Firth (SVG).

Aphomia sociella Bee Moth (R); at last records from other places in Orkney!. I have been catching this moth regularly around Quoyberstane since 1978, and Cheesman (1898) without locality recorded it as common. It's a moth I was certain had to be in other parts of Orkney. One was found dead on the windowsill of the summerhouse at Melsetter, Walls, Hoy on 26 July (SVG). Then five were recorded in a trap 28 July - 13 August 34 High St, Kirkwall (C&J Booth). Seven were recorded 14 July - 24 August Quoyberstane, St Ola (SVG). I still think there are more sites at which this moth should be recorded from.

Pieris rapae Small White (V); one was seen on 27 August Herston, South Ronaldsay (J&R McC)

Lycena phlaeas Small Copper (U); two records, one 31 July south end of Tankemess Loch (Keith Hague) followed by one 18 August Greameston Loch, South Ronaldsay (ER Meek). This brings the total number of records for this butterfly to 11 in the past seven years.

Nymphalis antiopa Camberwell Beauty (V); one seen 20 August North Ronaldsay (M Gray).

Inachis io The Peacock (V); one was seen 21 August Knowe of Quindry, South Ronaldsay (Ingrid McKenzie)

Argynnis aglaja Dark Green Fritillary (R); twenty-eight were recorded on the Bu sands, Burray, between 13 July - 5 August.

Timandra griseata Blood-vein (V); three were taken by trap between 4 and 5 August at 34 High St, Kirkwall (C&JB).

Eulithis pyraliata Barred Straw (C?); two taken by trap 29 July Bayview, Herston, South Ronaldsay (J&R McC). Four taken by trap between 28 July and 5 August Echna View, Burray (TD).

Perizoma flavofasciata Sandy Carpet (R); One taken by trap 14 June West End, Burray (N&R McCance).

Abraxas grossularia The Magpie (R); was seen widely over Orkney in fairly large numbers, one site recording over a thousand for the season. There was also a record from Sule Skerry on 13 July (MA).

Semiothisa wanaria The V-Moth (U); fifteen records of this moth altogether this year, eleven taken by trap between 19 July-6 August 34 High St, Kirkwall (C&JB). Four were taken by trap 3 August Clay Loan, Kirkwall (C&JB/L&G Rosie). The latest records are one 26 August 1995 Craigiefield, St Ola (SVG) and one 17 August 1996 Quoyberstane, St Ola (SVG). From the numbers seen at these two locations it looks likely that there is a resident population in the Kirkwall area, and that further proof of this should be sought by finding larvae which feeds on the leaves of black currant, red currant and gooseberry between April and June.

Hylaea fasciaria Barred Red (C); ten taken by trap 19 July Redland, Firth (SVG). One taken by trap 27 July Bayview, Herston (J&R McC).

Hyles gallii Bedstraw Hawk-Moth (V); one taken by trap 5 August Bayview, Herston (J&R McC).

Diarsia mendica Ingrailed Clay (R); was seen on 13 July Sule Skerry (MA)

Naenia typica The Gothic (U); one taken by trap 4 August Smyril, Stenness (ERM).

Orthosia incerta Clouded Drab (U); one taken by trap 24 August Echna View, Burray (T Dean). In the last 10 years there have been records of one 2 April 1993 Rackwick, Hoy (T Prescott) and one 23 April 1995 Ley House, Hoy (TP).

Rhizedra lutosa Large Wainscot (RI); nine records altogether from traps, seven between 11 September-1 October Smyril, Stenness (ERM); one 28 September 34 High St, Kirkwall (C&JB) and one 1 October Quoyberstane, St Ola (SVG).

ACCIDENTAL IMPORT

Duponchelia fovealis (AI); One was found in the wrapping of a cactus bought in Aberdeen by Gwen Adam in May. This moth is of Mediterranean origin and is considered a pest species. Records of this moth outside its native region are most likely to be accidental imports through imported plants.

My thanks is given to the following for help and records:

R G & G Adam	M Archer	J & K Barret	C J & J Booth
M Cockram	T Dean	A Duncan	N Fairbairn
K Fairclough	M Gray	K Hague	L Hogarth
Hoy Young	A K & J Johnson	A & S Knight	N & R McCance
Rangers			
J & R McCutcheon	I McKenzie	E R Meek	B Ribbands
LG Rosie	L Shields	G Stevan	H Stevenson
J & J Thomson	C Vasey	J Wylie.	

AMPHIBIA 2002

C J Booth

Bufo bufo Common toad

Tadpoles were noted on 7th and 28th June in 2 small pools near Sandy loch, Hoy.

A large female toad, found at Hundasaeter, Birsay on 13th June, weighed 106 g. and measured between 90 and 100 mms in length. Another toad found there on 9th August, weighed 55 g. and was 77.5 mm in length (A K & J Johnson). The last sighting of a toad was at Hundasaeter on 1st November.

Rana temporaria Common frog

The first frogspawn of the year was found on 28th February at Hoxa, South Ronaldsay (J R L Hogarth). It was covered in ice and taken into a greenhouse to thaw out. This is the earliest date so far recorded for frogspawn in Orkney. At other sites spawn was discovered on 16th March, Berstane road, Kirkwall (S Walls); 17th March, Rosebank, Harray (E Everiss); 18th March, Cairston Road, Stromness (D Stout); 26th March, Echnaview, Burray (T Dean) and 29th March, St Rognvald Street, Kirkwall (S Beaven). The last tadpoles emerged from spawn at Echnaview on 18th April.

The earliest report of a frog was 1 at Viewfield, Berstane Road, Kirkwall, on 14th January (J Robertson). Adult frogs were seen at Rosebank, Harray in early March and on 9th March at Hundasaeter, Birsay. At Echnaview, Burray calling was first heard on 13th March and frogs seen on 17th March, including 1 found dead on the road between Echnaview and Echnaloch. A total of 5 frogs were seen at Echnaview during the breeding season. In April a small frog was found living in a polytunnel in a garden in Inganess Road, Kirkwall. A froglet had been seen in the area the previous September (M Sinclair). A frog found at Hundasaeter on 27th July weighed 41gms and was 61 mms in length.

Froglets were seen on 18th June at Nearhouse, Sanday (Word of the Wild), 6th July at Hundasaeter, Birsay, 25th July at Kirkwall Golf Course (M Irvine) and at Skail, Eday (M Cockram) in July.

Reports from other areas included an immature frog in June at Dale, Birsay and a dead one found at Cruland, Sandwick on 14th August (R E Matson). Orange and red coloured frogs were seen at Papdale, Kirkwall (R Scott) and at Hundasaeter, Birsay on 26th August.

The last reported sighting of a frog was of one at Hundasaeter, Birsay on 10th November.

REPTILIA 2002

C J Booth

***Caretta caretta* Loggerhead turtle**

A juvenile was found dead amongst seaweed on the shore at the Choin, Marwick, Birsay on 23rd July by Lesley Craigie. The total length of the turtle was 38 cms and the carapace was 29 cms long and 27 cms wide. This was the first record of this species of turtle in Orkney.

BATS 2002

C J Booth

***Pipistrellus pipistrellus* Common pipistrelle**

There were several sightings of single bats at Melsetter, Hoy on 26th July. The first was seen at 22.15 hrs BST.

***Pipistrellus nathusii* Nathusius' pipistrelle**

One was found dead at the Old Kirk, North Ronaldsay on 7th June by Gillian Swanney. The body was sent to the National Museum of Scotland, Edinburgh, where the identity was confirmed by Jerry Herman and John Haddow. Slightly larger than the common pipistrelle, this is the second record of this migrant bat in Orkney. The first was found alive on South Ronaldsay on 12th June 1995 but died the next day.

Bat sp.

This year there were a number of sightings of bats where it was not possible to obtain specific identification.

One was seen in the evening of 4th and 7th of May at Sangar, North Ronaldsay (A Woodbridge) and observed flying during the day at Ancum loch by Peter Donnelly. It was thought to be quite a large bat and flew around the loch at a height of about 6 metres, occasionally diving down to lower levels. On 20th June on North Ronaldsay a bat, said by the observers to be larger than the one in May, was seen flying. It appeared to be dark on the upper side and much paler underneath, with quite large ears.

Elsewhere, on 9th May, Malcolm Russell saw a bat flying in the evening at Finstown. In August there were further sightings in Finstown with 2 seen by Alan Thoms on 5th and one on the 6th, this bat was calling at 45 kHz. Then, in November, one was seen on the 3rd by Eric Meek, flying during the day close to the east side kirk, South Ronaldsay. This bat appeared to be larger and darker than a pipistrelle, with obvious ears. On 5th one was seen during the evening at Smithy cottage, Holm and not far away, on 11th, Keith Hague and his family watched one at dusk, flying around their house at West Heath, Holm. It landed on the gable end, climbed up the wall and disappeared into a ventilation grille. The last sighting was made by John and Lettie Tulloch, who saw a bat on a dyke close to Upper Linnay, North Ronaldsay on 29th (A Woodbridge).

THE SPRING HOVERFLY, *CHEILOSIA GROSSA*, IN ORKNEY

Ross Andrew

I recorded this attractive spring hoverfly in Orkney for the first time in early May 1986 at Houton, Orphir. Typically, only one specimen was seen, on *Salix* catkins in bright sunshine in a sheltered spot on a calm day. This most northerly UK record for the species was

published in the Orkney Field Club Bulletin but was overlooked when the current Provisional atlas of British hoverflies was published in 2000. As a result, there is no dot shown for *C. grossa* in Orkney, this has now been remedied with the above and more recent records forwarded to the distribution scheme organisers. This species may have been overlooked in Orkney not just because it is apparently uncommon and with a short flight period, but more likely because visiting dipterists tend to arrive after the flight period is over.

Cheilosia grossa is a fairly large, foxy-haired hoverfly with a wing length of 8.5 to 11.75mm. It tends not to be noticed because of its very early and short flight period. Adult records in the UK are scarce, but widespread. The previous most northerly records were from the vice-counties of Caithness and East Sutherland. The flight period is from March to May, with the peak in late April, early May in the north.

The right weather conditions for adults to fly in Orkney during early May are probably short-lived in most years. Last spring, weather conditions were favourable and I was in a position to visit likely sites. The hoverfly is found in association with its larval food plant, the marsh thistle, *Cirsium palustre*, in wet grassland, ideally, with willows nearby affording food and shelter for the adults.

Much to my surprise, during a good spell of sunny weather in late April, I observed two pairs of males and females at *Salix* catkins in my front field at Millfield Cottage, Costa. Although I also looked at the previous Orphir site in good conditions, no adults were seen. I had also previously recorded one other specimen at Durkadale in 1996, again at *Salix* catkins, this time in the Orkney Field Club tree nursery, but none were seen here in 2002. I did record one very tatty male in a new site at Caldale Carr in early May. By this time, the very abundant hoverfly species, *Eristalis pertinax* and *E. intricarius* were aggressively dominant at all pollen and nectar sources.

From these observations, I would judge that *C. grossa* is probably widespread in Orkney (at least on the Orkney Mainland) but nowhere abundant. There is no shortage of suitable habitat and larval food plants with plenty of damp grazing and numerous patches of low-lying willow and willow carr. Observers in Orkney will not have the problem encountered south where males of the species typically fly high and often out of sight at woodland rides or edges. The flight period in Orkney is probably also very short, perhaps only four weeks or so, with any sightings of adults confined to sunny conditions within this period. According to Ball and Morris, it should be easier to record by looking for the larvae in the stems of marsh thistle. Where these have been mined, they become stunted and multi-stemmed. By using this method, it has been shown elsewhere to be more common than adult records would suggest.

Another closely related hoverfly, *Cheilosia illustrata*, has been recorded in Orkney and is a very common species south. It is a furry, striped, bumblebee mimic with a dark wing cloud and is usually to be seen on hogweed or angelica flowers in July and August. It is possible that *C. grossa* could also be a bee mimic, not of bumblebees, but of the foxy or orange spring solitary bee, *Andrena fulva*. This species, however, is unrecorded for Orkney, the only *Andrena* record I know of is for another species, *Andrena tarsata*, identified by D. Sheppard. This was found in early July 1978 in Rackwick, Hoy, by the Newcastle University Conservation Society. Could the presence of *C. grossa* in Orkney hint at *Andrena* solitary bees having once been more abundant in Orkney?

RECORDS OF *CHEILOSIA GROSSA* IN ORKNEY, TO DATE

1 male*, Houton, Orphir, OS ref. HY317044, at *Salix* by burn side

1 male, Durkadale, Birsay, OS ref. HY298251, in OFC tree nursery, at

Salix

2 males, 2 females*, Millfield Cottage, Costa, Evie, OS ref. HY339279, at *Salix* in small plantation, recorded over a period of three days, with adults clearly chilled (inactive) on third day

1 male, very tatty, Caldale Carr, Kirkwall and St Ola, OS ref. HY411102

(*Single voucher specimens, R.H.Andrew collection).

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WASPS 2002

C J Booth

***Dolichovespula sylvestris* Tree Wasp**

The increase in sightings of this species continues. Queen wasps were found at West Scapa, St. Ola on 30th April (R G Adam), Queenamidda, Rendall on 10th May (J B Ribbands) and at least 3 Northholme, St. Ola on 16th May (R G Adam). There were sightings of 1 to 4 Tree wasps at Northholme between 17th May and 27th August, 1 was seen at High Street, Kirkwall on 25th June and a minimum of 10 were foraging in Tankerness House gardens on 24th July (following a report from John Crossley). Single wasps were noted at Queenamidda on 30th July, 5th and 8th August.

Common wasps *Paravespula vulgaris* and Norwegian wasps

Dolichovespula norvegicus were seen in Kirkwall during the summer but apart from a minimum of 30 Common wasps from at least 3 colonies in Tankerness House gardens on 25th July, no attempt was made to record breeding sites. Norwegian wasps were seen regularly at Queenamidda from 28th June and a nest found, about 45 cm up in a Field Maple sapling, on 18th August.

Many of the wasps reported, were seen feeding on Cotoneaster flowers.

While operating a moth trap in our garden at High Street, Kirkwall between 25th July and 30th September 112 wasps was caught (107 Common wasps, 4 Tree Wasps and 1 Norwegian wasp).

CYPHOZOA - JELLYFISH REPORT FOR 2002

Tim Dean

Records for jellyfish in Orkney waters during April are rare; there had been only two both involving single individuals of *Rhizostoma octopus* - the barrel jellyfish. However, in mid-April 2002, the waters around the Sutherland pier in Flotta held thousands of *Aurelia aurita* - the moon jellyfish, ranging in size from about 50mm to 80mm. More strangely, Flotta was the only place that jellyfish were recorded in this period despite searches around Lyness, Burray and South Ronaldsay.

More typically, during the second week of July, Orkney's waters received a substantial influx of jellyfish. In the Scapa Flow - Stromness approaches area, both Jeannine Hazelhurst and myself saw thousands of *Aurelia aurita* their sizes altogether much bigger than the earlier Flotta examples. In addition similar numbers were noted for *Cyanea capillata* - the lion's mane jellyfish some of them considered to be a metre in width. Much smaller numbers of *Cyanea lamarckii* - the blue jellyfish, were seen in this location in the same period.

Margaret Rinder surveyed Eday and Stronsay beaches in July and counted over 350 stranded *Aurelia aurita* from ten sites with the Vat of Kirbuster yielding two *Rhizostoma octopus* and the year's only *Chrysaora hyoscella* - the compass jellyfish.

My thanks to the following observers: Chris Booth, Jeannine Hazelhurst, Rosemary McCance, Margaret Rinder, Ronald Tait, Stanley Thomson.

Records of all species of jellyfish are always welcome and can be sent to me at Echna View, Burray, Orkney, KW17 2SX.

ORKNEY CETACEAN REPORT 2002

C J Booth

Highlights of 2002 included Bottle-nosed and White-beaked dolphins off Hoy during August, several sightings of Killer whales and a pod of Sperm whales in November. In contrast, records of Harbour porpoise were down slightly although this may just have been a reflection of observer activity.

Balaenoptera acutorostrata Minke whale

On 8th May single whales were seen near the gas jetty, Flotta and south of the Black Craig, Stromness. One was present near the south end of Swona on 16th July and there were further reports of a whale, probably this individual, off the west coast of South Ronaldsay during the next few weeks, the last being on the 21st August when it was seen at the entrance to Widewall Bay.

There were sightings of single whales off Rackwick, Hoy on 5th August, the west side of Hoy on 10th August (from M.V. St.Ola), and Rora Head, Hoy on 12th August. One off Rackwick, Hoy on 18th August was observed lunge feeding about 300metres offshore. On 21st August 2, probably 3 were seen off Rackwick and there was a similar number there on 4th September, while on 23rd September single whales were observed off Rackwick and Rora Head.

Stranding: A dead whale came ashore near Bring Head, Hoy in June.

Physeter macrocephalus Sperm whale

A minimum of 10, although some reports have suggested 13, were present in the Holm Sound area, east of Lamb Holm on 27th and 28th November. It was estimated that some individuals could have been 15 metres in length.

Stranding: The carcass of a long dead whale stranded at Cornquoy, Holm on 17th March. It was a male with a length of about 13 metres

Phocoena phocoena Harbour porpoise

Slightly fewer reports than in previous years with none in February, March, November and December. As usual, most frequently recorded July to September. The majority of sightings were of 1 to 10 porpoises but 14 were observed off North Ronaldsay on 18th September and from 20 to 30 off Rackwick, Hoy between 1st August and 1st October.

Strandings: One, which had been dead some time, was discovered at the Ness of Tankerness on 1st June and a juvenile, length 86 cms, was found dead at Newark, Sanday on 13th June.

Tursiops truncatus Bottle-nosed dolphin

Two, possibly 3, were watched off Rora Head, Hoy on 12th August. The second consecutive year that this species has been recorded and only the 5th sighting for Orkney.

Lagenorhynchus albirostris White-beaked dolphin

Following a lack of sightings in the last 2 years, there were several reports in 2002 from the west coast of Hoy. On 17th July 6 were watched off Rora Head and a minimum of 15 were seen off there on 12th August. Further sightings in August were of 5 off Braebuster, Hoy on 5th, 2 there on 19th and 6 to 8 on 21st, while off Rackwick, Hoy 1 was seen on 18th and 6 on 22nd.

Orcinus orca Killer whale

Another good year of sightings, all within the period May to August. On 7th May 6 were seen off the lighthouse, North Ronaldsay and on the same day a cow and a calf, and possibly others, were seen in the Bay of Skail, Sandwick. Four were reported north of the Brough of Birsay on 28th May. The only June record was of a pod of 5 seen in the Pentland Firth on 23rd. Probably the same pod, consisting of 2 large and 3 smaller individuals, was off the east side of South Ronaldsay on 2nd July and Burray Ness on 4th July. Six were watched off the lighthouse North Ronaldsay on 26th July and 8, possibly 10, were off the north end of this island on 28th July. On 1st August 3, 2 females and a juvenile, were observed off Rackwick, Hoy.

Grampus griseus Risso's dolphin

On 3rd July 3 were present for some time in Stromness Harbour. One of these, a female, later stranded and was found dead on 4th. There were signs that it had been injured. All other records were in August with 3 seen from the St. Ola off the west side of Hoy on 8th and 1 off Rackwick, Hoy on 16th. At least 4 were watched heading south from Marwick Head on 26th.

Stranding: One, that had been dead for some time, came ashore at Breckness, Stromness on 30th August, the length was 3.05 metres.

Unidentified cetaceans

There were sightings where identification could not be made with absolute certainty:

18th July 1 whale sp in The String

20th July	Several dolphin sp off Old Man of Hoy, from St. Ola
21st July	1 whale sp 1 mile off Marwick Head
27th July	2 (min) dolphin sp west of Brough of Birsay
5th August	1 possible Risso's dolphin off Rackwick, Hoy
5th August	3 possible White-sided dolphins off Braebuster, Hoy
6th August	2 dolphin sp off Rackwick, Hoy
7th August	2 or 3 dolphin sp off Rackwick, Hoy
8th August	1 dolphin sp west of Hoy, from St. Ola
20th August	8 dolphin sp off Braebuster, Hoy
11th Sept	1 probable Minke whale Herston Head, South Ronaldsay
18th Sept	1 possible Risso's dolphin North Ronaldsay
19th Sept	1 possible Risso's dolphin North Ronaldsay
20th Sept	2 possible Risso's dolphins North Ronaldsay
23rd Sept	1 possible Risso's dolphin North Ronaldsay

Stranding: On 15th March the very decomposed body of a cetacean was found at Sandwick, South Ronaldsay. It was thought to have been either a Pilot whale or Risso's dolphin but was buried before an identification could be made.

ACKNOWLEDGEMENTS

I am very grateful to the following for their records and help, without which this report would not have been possible: R G Adam, M Bain, J Booth, F Budge, G Churchill, I Dillon, B Drever, E Everiss, L Fettes, B Flett, R Flett, R Forbes, S V Gauld, K Hague, C Irvine, A K Johnson, D Kirkland, M Lynch, R E Matson, J A McCutcheon, R McCutcheon, H McKenzie, North Ronaldsay Bird Observatory, J B Ribbands, C Rodger, E J Rosie, G Rosie, R J Simpson, L Sinclair, A Skene, R Thorne, A Woodbridge.

DETAILS OF CETACEAN SIGHTINGS SHOULD BE SENT TO:

Chris Booth, 34 High Street, Kirkwall, Orkney, KW15 1AW

REDRESSING THE BALANCE - YEAR 6

Dick Matson

When on Orkney's farms the growing of oats gave way to barley, when combine harvesters took over from binders and the use of weed killers and artificial fertilizers became widespread, the winter food supply for seed-eating birds was reduced drastically. All that remained on the farms was the small amount of seed of the weeds that either escaped treatment or could tolerate these chemicals. Wintering bird numbers plummeted correspondingly. At Dale on the east side of Swannay Loch we have been growing bird crops and leaving them unharvested in an attempt to restore the winter food supply. The most important challenge has been to find crops that continue to provide seed at the most critical period of February, March and early April and also crops that are not buried by a substantial fall of snow.

Thus for 2002 we planted not only the well-trying mixture of oats, barley, kale and conventional mustard, but experimented with quinoa, triticale, linseed, millet. Albatross mustard and fodder radish, sown on their own in blocks. In 2001 the first three of these "exotics" had been tried, but had largely been swamped by the conventional crops among which they had been planted. In 2002 a small strip of the brilliant blue flower, phacelia, was also grown to benefit bees and other insects. Summer 2002 was of course exceptional and good yields of all these were obtained except the millet that failed to germinate. The summer weather also benefited the non-arable weeds of the countryside and stimulated higher than normal seed production. The winter feeding pattern of seed-eating birds may have been influenced accordingly.

Twite and Linnet appeared at the beginning of September 2002. By 15/10 they had formed a combined flock of 500+. Twite increased steadily in December to 800 on 20/12 and 1,000 by 31/12 with a sudden dip to <50 with the change from arctic to mild weather on 09/01/03. After a further week numbers built up steadily to c420 on 24/02, with c400 still present on 01/03 and 272 on 20/03. Linnets, although far more numerous than normal, appeared erratically, with c200 in mid-October, but more usually from 10 to 50.

Reed Buntings had also arrived at the beginning of September with c20 on 06/09, building up steadily through the winter to a peak of about 90. Regrettably Snow Buntings as elsewhere in Orkney were fairly scarce. A present on Christmas day was a flock of 48, while on 13/01/03 36 joined the feeding Twite flock until spooked by a Merlin.

The humble Greenfinch was an unusually numerous species this winter. Further south these birds can form very large wintering flocks but these are not often seen in Orkney. A flock of 256 was present on RSPB "set-aside" on 02/12 while at Dale the maximum was c60 on 18/11. At the time of writing c12 are still with us.

2002 was another good year for the autumn migration of Brambling through Orkney. At Dale a few appeared in late September with c50 by 09/10. Thereafter numbers fell to single figures by late December. Good numbers of Chaffinches arrived in Orkney at the same time as the Bramblings. Dale saw only a few of these although significant flocks wintered elsewhere in the County.

While Greylag numbers around Swannay often exceeded 1,000 this winter, thankfully the usual invasion of Dale by the ravenous hordes did not occur. Instead they were replaced by their smaller brethren the Mallard that numbered 180+ by 22/11. A real treat in Nov, Dec and early Jan, was the occasional presence in the Mallard flock of 1 or 2 Pintail. Up to 40 each of Teal and Wigeon were also seen in December and January.

Other regulars were: Rock/Feral Doves, 300-400 by mid-winter; up to 15 Hoodies: up to 40 Rooks; Common Gulls, 72 on 21/12 and Jackdaws, 80 on 27/12. Skylarks increased from single figures in early winter to 36 by 15/02, followed by a rapid build-up to 72+ on 25/02, 130+ on 05/03 and a peak of c180 on 17/03. Also Blackbirds, Song Thrushes, Redwings and Wrens were usually present. A one-off observation was of 3 Mealy and 1 Lesser Redpoll on 21/10.

On the look out for rodents and small birds were the inevitable raptors. Hen Harriers visited daily, 4 hunting the field together on 21/10. A Kestrel was another regular while visits by Sparrowhawks and Merlins, frequent early on, tailed off in late autumn. However Merlins

started to appear again in late January. Predation success rates decreased significantly over the winter, presumably as the juveniles became more streetwise.

How valuable were the various crops? The phacelia was outstanding for bees in August. A rough check on one occasion showed 1⁺ bees per sq m, and 4 Great Yellow Bumblebees were seen together on one patch. The standard mix of cereals, mustard and kale continued to be popular with all the seed-eating birds, although not a lot of seed remained by late January. The quinoa yielded fairly well and Reed Buntings fed on it occasionally. As mentioned the millet failed to germinate. The Albatross mustard cropped heavily and was very popular but largely consumed by late November. The linseed yielded adequately but did not seem to be especially attractive.

The most significant "finds" of the winter were the Triticale and fodder radish. The former did not ripen until late November and some is still standing at the time of writing. Thus on the occasions in January and February that the ground was blanketed by snow the Reed Buntings were able to take advantage of the fact that the Triticale stalks still penetrated the snow layer; unfortunately Triticale seed is too big for Twite. The fodder radish cropped very heavily and the thick skin of the seedpod has preserved some of the seed well into the spring. The seed although large, is fairly soft and was popular with both Twite and Linnet. The dove population also latched on to it in a big way. One Rock Dove was obviously paying too much attention to this delicacy and not enough to the threat from the skies and fell victim to a Harrier. Examination of the remains revealed a crop bulging with fodder radish seed.

Another fascinating winter, perhaps not altogether typical as there were just a couple of short spells of harsh weather, and low temperatures only lasted a day or two. Twite did not feel the need to come into the garden for the seed I provided there. From this and their other relaxed behaviour I don't think they have been under any real pressure this winter. As soon as a mild spell arrived they would disappear, presumably to feed on the wild plant seed still available in the countryside and near the sea and loch shores. Still it is only March; perhaps it's not all over yet!

Once again my thanks to Michael Stevenson my farming neighbour who does the cultivation and to the RSPB, in particular Andy Knight.

OFC HOUSE MARTIN PROJECT – YEAR TWO REPORT - 2002

Dick Matson

Background. Records show that the nesting success of House Martins in Orkney has historically been very limited, with an average of 2 to 3 broods being fledged annually. Members of the OFC Committee concluded that the success of nest building and nest survival was weather related and a project was initiated to provide 40 artificial weatherproof nests in areas where the birds habitually tried to nest.

These were installed in time for the 2001 breeding season and remained in place for 2002. Six artificial nests were placed under eaves and the remainder in the apex of the gable-end of houses with a generous roof overlap. Mr. Swanney of Twatt made and installed a further 4 gable-end nests.

Nesting in 2001 (Year One). Two pairs nested in the triangular spaces on top of artificial gable-end nests (hereafter referred to as "on-top" nests), one in Stromness and one near Dounby. Two pairs nested on the gable-ends opposite to where artificial nests had been installed, both in Holm. In addition there were 2 natural nests in Burray and 2 in Orphir unconnected with the project. One of the Orphir nests had a second brood. There were a number of nests started but not finished, for reasons unknown. One of the Holm nests fell down in strong winds but was rebuilt and fledged young. The other nest in Holm also came down, but just after the young had fledged. Thus there were 8 successful nests in Orkney in 2001. (See 2002 OFC Bulletin for a full report on Year One)

House Martin Migration. In 2001 House Martins and Swallows had arrived late and in small numbers although the Swallow population appeared to be up to normal by mid-summer. The same pattern was repeated in 2002, except that House Martins seemed fewer and later than ever. Again bad weather in the south may have played a part.

Nesting Activity in 2002. In mid-May House Martins appeared around the artificial nest in Back Road Stromness where a successful "on-top" nest had been built in 2001. They then disappeared until early June when they again built an "on-top" nest. At least 3 young fledged by 19/07. It is assumed that the delay in nest building was caused by lack of mud following the exceptionally dry spring and early summer.

A pair started building an "on-top" nest at a house in Dounby on about 05/06. Another pair built a similar nest on the opposite gable-end about 10 days later. Young were still being seen in the entrance of the first nest on 14/08 and of the second nest on 21/08, so it is possible that these nests had second broods.

In early June 2 pairs started building on houses at Hunclett Road, Holm, both on the opposite gable-ends to artificial nests. The first nest, which was in the same position as a 2001 nest fledged young at the end of July. The second nest was a week behind the first and hatched 5 chicks about 11/07. Regrettably overnight wind and rain on 29th/30th brought the nest down with the loss of 2 chicks; but the story had a happy ending. Mr. Firth and his son from Netherbutton came to the rescue and moved the artificial nest into the position of the natural nest and the 3 survivors were placed in it. Next day they were being fed at the nest and at least 2 fledged in due course.

An almost complete gable-end nest was spotted at Stromness swimming pool on 23/06. At least 4 young fledged around the end of July just before the nest fell down in bad weather.

An almost complete gable-end nest was found in Dounby on 02/07. A second was under construction on the same house but was abandoned half built. The first nest fledged young in early August.

Another gable-end nest was found in Dounby on 09/07 had probably been completed some days previously. The young are believed to have fledged in mid August.

“And now the saga of the nest at Dounby surgery:” In 2001 a little mud had appeared at the very high and exposed gable-end at the front of the surgery, but that was all. In early June 2002 a little more mud appeared and then building ceased. In early July permission was obtained to install an artificial nest by way of encouragement. A long ladder was positioned for the installation but was found to be 2 feet short. While we were standing at

the bottom of the ladder scratching our heads over the predicament a House Martin appeared and settled on the existing mud. The ladders were removed and building recommenced in earnest. Unfortunately it was all bad news from then on. The completed nest fell down in rain and high winds on the night of 25/26/07. It was rebuilt in 4 days, but on 30/08 it was observed to have again succumbed to the weather.

On 13/07 a completed gable-end nest was found on a bungalow near Graemshall. The young fledged around 21/08.

The often-used house in Orphir that had 2 successful nests in 2001 had none in 2002. Birds investigated the site in early June and then disappeared. It is likely that a lack of mud was the problem.

In response to a House Martin newsletter sent recently to the householders involved, a call was received from a lady in Holm. A visitor taking a stroll round her house in the summer had heard chicks calling from the artificial gable-end nest there. This nest is in a difficult position to observe and so had received little monitoring. We have yet to examine this nest for confirmatory signs of occupancy.

Conclusions. There were at least 9 successful nests in Orkney in 2002 compared with 8 the previous year. Almost certainly a minimum of 24 young fledged and perhaps as many as 40.

In 2001 no birds nested actually inside the artificial nests; in 2002 it is possible that just one pair did so. But there were 3 successful "on-top" nests compared with 2 in 2001. Again 2 pairs nested on the gable-ends opposite to where artificial nests had been put up.

The weather is quite obviously the limiting factor on nesting success in Orkney. Some birds arrived in early summer when it was very dry and no mud was available and either abandoned the site or returned after it eventually rained and they were able to find mud. Also there were 4 nest collapses after heavy rain. It seems therefore that to achieve an expansion of House Martin nesting human intervention is essential. The first thing that can be done is to ensure that there is a permanent puddle not too far from the nest site in May and June if the weather is dry. From our observations it seems that the birds do not like to travel more than a few hundred yards for mud. The puddle need only be a few inches wide, but should be situated in the open well away from cat and raptor cover.

Secondly we will experiment with enlarging the holes on some of the existing artificial nests and will put up some modified nests. The Schwegler nest is used successfully elsewhere in UK and mainland Europe and we are at a loss to understand why House Martins have not taken to them in Orkney. The size of the hole is designed to let in the Martins but keep out House Sparrows. Nevertheless we think that enlarging a few would be worthwhile.

Perhaps the birds prefer to undertake some construction work themselves which would explain the "on-top" nests. So we will install some half-built nests with a base and the lower 11 inches of the structure complete. The birds can then finish the construction themselves. These part-built nests will fit more snugly under gable-ends than the Schwegler nest. Experience shows that in the event of nest collapse nest rebuilding takes only a few days. So if the mud section (completed by the birds) on our new nests should collapse, the remaining structure should be adequate for the birds to continue to incubate eggs or brood young during

rebuilding. If we make the nests any more complete they will become attractive to House Sparrows.

Progress has been slow in the first 2 years of the project, but at least we are not regressing. We are increasing our knowledge of nesting habits and associated problems. The most promising feature of Year Two is the concentration of nesting activity in Dounby. House Martins like to nest communally and we now have an ideal opportunity to exploit and build on this trait.

We are very grateful to the householders involved all of who continue to support the project. Thanks are also due to Dennis Paice and Brian Ribbands who assisted with artificial nest installation and to those who helped with nest monitoring.

FULMARS ON EYNHALLOW

Paul Thompson

Editor's note: Dr Paul Thompson's update of Aberdeen University's Eynhallow research project now it its 33rd year.

Our long-term studies of Fulmars on Eynhallow have continued to develop over the last year. Current work focuses on the portion of the colony breeding away from the high cliffs on the west of the island. This area represents around 65% of the total nests on the island, and provides better, and safer, opportunities for more detailed studies of breeding success and behaviour. Our annual visit at the end of May recorded 170 occupied nests in this study area, and later visits in July and August recorded an overall reproductive success of 38%. This is close to the long-term average since 1960, and certainly a much better year for the fulmars than 2001, when only around 20% of occupied nests produced fledglings.

106 colour-ringed breeders were recorded in the summer of 2002; the oldest being a female that was first found breeding in 1967. Twelve of the other breeding birds seen last year had been first caught as adults on Eynhallow over 20 years ago. Further afield, one of the 1963 BTO ringed fledglings was taken in the Faroes, and two birds caught as adults in 1985 and 1997 were recovered in the Faroes and the Netherlands respectively.

In addition to the long-term monitoring work, three students carried out short honours and MSc projects in 2002. Studies of variations in incubation stints suggested that Eynhallow birds were typically making foraging trips of 1-2 days during late incubation and chick brooding. Measurements of egg size were used with long-term ringing and morphometric data to show that egg volume was related to both the size and the age of females. Furthermore, the success of nests in 2002 was significantly related to egg size. Alongside these small projects, we continue to use the results from this study to explore the effects of climate variation on fulmar reproductive success and survival, and intend to expand research on their diet and foraging behaviour over the coming years.

We are grateful to Talisman Energy (UK) Ltd. and the Natural Environment Research Council for funding, Orkney Islands Council for continued access to Eynhallow, and the many friends and colleagues both in Orkney, and further afield, who have helped us continue this work.

Further information and links to recent publications can be found on the Lighthouse Field Station website <http://www.abdn.ac.uk/zoology/lighthouse>.

MAMMALS – REPORT FOR 2002

Tim Dean

HEDGEHOG

In late September, Chris Booth recorded a live juvenile on Rackwick Road, Hoy, and seven dead ones, all on the 30th, including one at Scapa, and six between Dingieshowe and Skaill, in Deerness.

R.G.Adam recorded 21 animals, of which 18 were dead road casualties. The live animals were recorded at Cobrance, Tankerness on 17th. June, Graemeshall Holm on 24th. August, and Mossquoy, Deerness on 4th. October. The only other recorded record was of a road casualty from the north end of Shapinsay in late August.

MONTHLY SIGHTINGS RECORDED BY CB AND RGA:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			2	2	1	2	6	3	2	3	

PYGMY SHREW

There were three records, a single at the Knowe, Harray, on 17th. March; a single in Burray on 20th June and a corpse at the side of the road at Quoy-i-dale, Hoy, on 28th. September.

The only submitted records were of singles at Harray on 14th March and Suifea, Hoy on 16th August.

BROWN HARE

Chris Booth recorded 31 animals on 20 days between 26th. February and 31st. May. In June, two animals were at Crantit, St Ola, while the same site produced a three-quarter grown individual on 17th. July. His next sighting was on 18th. December at Stenness.

MOUNTAIN HARE

From Hoy, Chris Vasey and Chris Booth supplied me with records of 56 animals on ten days between 22nd. March and 12th. September.

ORKNEY VOLE

The only submitted record was of one at the Knowe, Harray on 19th. March.

WOOD MOUSE

Chris Booth recorded animals on five dates. Four of the records relate to the March-April period of which three were caught in traps. One on 18th. April, was seen by Keith Johnson feeding on a bird table at Hundasaeter, Birsay. The last record was of a dead animal, on 14th. September at Marwick Head.

OTTER

Monthly sightings:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	1	1	2		2				1		1

Locations:

Feb: Loch of Hundland

Mar: Loch of Hundland

Apr. Loch of Hundland; Loth pier, Sanday

Jun: Peedie Sea, Kirkwall, Puldrite, Rendall

Oct: Bewan Loch, North Ronaldsay

Dec: Rickia, Harray

Road casualties:

Jan: Langskaill, Tankemess

Mar: No1 Barrier; No 4 Barrier; Eday

Apr. No 3 Barrier

Around the Peedie Sea on 10th. April, I found otter spraint at 16 different sites.

Effy Everiss supplied me with records of tracks from Golta, Flotta, Resting Hill, Eday, Vasa Loch, Shapinsay, and Sandside Bay, Graemsay.

My thanks to the following observers:

R.G.Adam	Chris Booth	Elaine R Bullard	N. Craigie
Alison Duncan	Effy Everiss	Louise Fortune	Jim Hamilton
L Hogarth	A.K & J. Johnson	Rosemary McCance	Herbert McKenzie
Ethel Mowat	Northern Constabulary	Orkney Field Club	Graham Rendall
Lesley Sinclair	Jenny Taylor	Kate Townsend	Chris Vasey.

Records of all mammal species are always welcome and can be sent to me at:

EchnaView, Burray, Orkney, KW17 2SX.



ANNUAL GENERAL MEETING

HELD AT 7.30PM ON THURSDAY, 23rd
JANUARY, 2003, IN THE SUPPER ROOM,
COMMUNITY CENTRE, KIRKWALL

1 **Present:**

Elaine Bullard, President; Mildred Cuthbert, Vice-president; John Crossley, Chairman; Chris Booth, Vice-chairman; Dennis Paice, Treasurer; Kate Barrett, Secretary; Gwenllian Armer; Lynda Bartlett; Peter Ford; Sydney Gauld; Sally Ann Hallam; Dave Peppitt; Dick Matson; Pat Matson; Alison Skene; Gil Steven; Jean Steven; Chris Vasey; Linda Vasey.

2 **Apologies** Olaf Cuthbert, Jenny Taylor

3 **Minutes of the previous meeting** were adopted on a proposal by Dennis Paice, seconded by Sydney Gauld

4 **Matters arising** There were no matters arising

5 **President's address:**

The President commended all those contributors to Club work who kept a low profile and often went un-noticed, as well as thanking the more obvious contributors. The President then made a plea for extra help with clearing after public events such as the County Show and Charities Bazaar when this was more often left to the few remaining folk; she went on to make the point that people were reluctant to put themselves forward for Club involvement and might welcome a more direct invitation and that if members knew likely candidates they should approach them on behalf of the Club. It was then suggested that we introduce ourselves, as we may not know each other; this was done.

6 **Chairman's address:**

The chairman began by thanking everyone for attending the meeting and for their support over the past year and said how impressed he had been, looking through the minutes, on the variety of interests and activities depicted there. Projects, outings, talks, shows, courses, lobbying, all reflecting a range of knowledge and great depth as one of the greatest strengths of the Club. Particular thanks should go to individual members whose specific interests have led to successful outcomes such as the grass verges survey, the house martin nesting project, and the training courses. All of which means the Club is held in some respect in the community when views are consulted and taken on board, viz., modifications to the Orkney Local Plan, Hoy grazings, fish farming developments, the effects of algal blooms, etc. Special thanks were extended to the producers of the Bulletin, and the Chairman then went on to comment on representatives to external bodies: the Countryside Committee, Environmental Forum, FWAG, the Native Tree Group and the Recorders Group. The President and the Chairman both representing the Club supply technical advice to Orkney Biodiversity Record Centre (OBRC) and also supply records hopefully which stimulate biodiversity recording in the county and encourage public involvement by the use of leaflets and posters - dragonflies this summer.

Max Scratchman, whose contract ends in February, has promoted OBRC by designing the website. Producing a marketing plan and promoting OBRC to commercial users, while Sydney Gauld has been inputting, outputting and managing data and developing records analysis.

Two committee members, who have now resigned, are kindly designing an up-to-date web site, which will become available in due course.

Finally the Environmental Partnership - the Club represented here by the Chairman and Chris Booth. The Partnership promoted an Environment Day as part of the Science Festival is now working towards a Biodiversity Action Plan and the draft Orkney Community Plan as well as developing an Orkney Environment Trust.

7 **Treasurer's report:** The Treasurer presented a Statement of Accounts for 2002. These were adopted on a proposal by Gwenllian Armer, seconded by Elaine Bullard. It was agreed that

there would be no increase in membership fees for the coming year.

8 **Sub-committee reports:**

- a) **Biological recorders:** Elaine Bullard reported on the development of a plan for recording and commended Sydney Gauld's work in OBRC.
- b) **Editorial:** Comments were invited from the floor but those present were very satisfied with both Newsletter and Bulletin.
- c) **Juniors:** Alison Skene reported little activity over the past year for various reasons except for Stromness Shopping Week, the County Show and OBRC Open Day, that is July, August and November 2002. However, plans were in hand for an indoor meeting in either February or March 2003 and she would welcome new members and ideas.
- d) **Walks & Talks and Projects:** Organiser, Dick Matson, reported a high calibre programme throughout 2002 with excellent speakers and well-organised, enjoyable outings. The house martin project was showing development and the grass verge surveys should be completed this coming year with all isles covered. New ideas and helpers would be welcomed.

9 **Constitutional changes:**

- a) The Secretary proposed three changes to clarify the current wording of the constitution, which has not been reviewed since 1997. The changes had already been discussed and accepted by the committee and, if accepted by those present at the AGM, would then go for ratification by the Inland Revenue prior to adoption.
- b) A fourth alteration was proposed by the President which had not been adopted by the committee and, after some discussion among those present, it was agreed that this amendment be discussed by the new committee and publicised in the next Newsletter for consideration at next year's AGM.

10 **Elections**

Office	Nominee	Proposer	Second
Chairman	Peter Ford	Kate Barrett	John Crossley
Vice-chairman	Gwenllian Armer	Dennis Paice	
John Crossley			
Secretary	Kate Barrett	Jeff Barrett	Chris Booth
Treasurer	Dennis Paice	Annie Manson	A.D.Worth
Member	Dick Matson	Mildred Cuthbert	Jean Stevens
	Sydney Gauld	Chris Booth	Mildred Cuthbert
	Chris Booth	Jean Booth	Pat Matson
	David Peppitt	Peter Ford	Elaine Bullard
	Jeff Barrett	Elaine Bullard	Dick Matson
	Alison Skene	Sydney Gauld	Jean Stevens
	Lynda Bartlett	Alison Skene	Dick Matson

11 **Any other competent business:**

The new chairman thanked all out-going committee members. There was no other business.

12 **Date of next AGM:**

Thursday 29th January 2004 at 7.30pm in the Supper Room, Community Centre, Kirkwall.

The meeting closed at 9.30pm and was followed by a social period, coffee and home bakes, for which thanks are extended to Pat Matson, et al, for their contributions.

STATEMENT OF ACCOUNTS 2002

INCOME	2002	2001	EXPENDITURE	2002	2001
Subscriptions	948.00	1028.00	Advertising	144.90	141.98
Club nights	147.88	109.60	Room Hire	126.54	120.77
Fundraising			Insurance	59.50	210.00
Charities Bazaar	124.60	142.80	Subscriptions	51.00	51.00
County Show	147.21		Bulletin & Newsletter	539.00	519.14
Bank Interest	150.39	206.30	Other Expenses	317.72	291.81
Other Income		34.80	Grass Verges Survey	975.01	
Grass Verges Survey	1054.39				
			Total Expenditure	2213.67	
			Surplus	358.80	
	2572.47			2572.47	

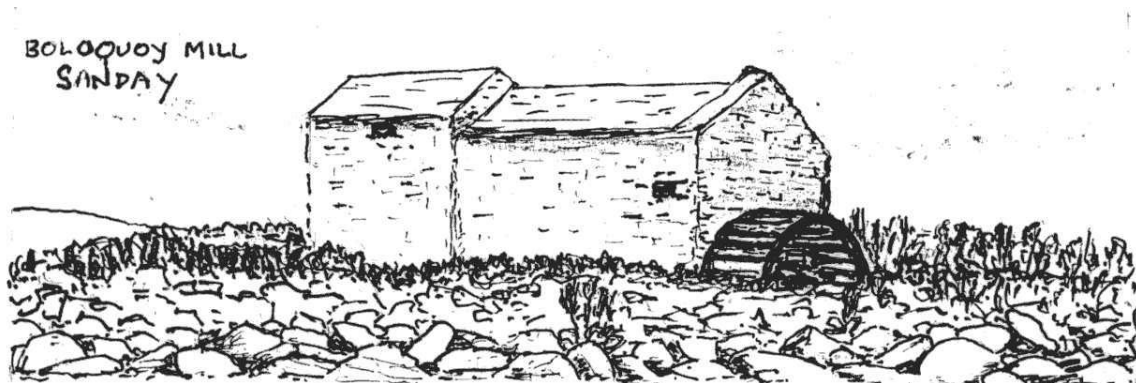
Summary

Cash in hand @ 31 st December 2001	8362.07
Income over expenditure @ 31 st Dec 2002	358.80
	8720.87

Bank Details

Premier Account	6629.24
Treasurer's Account	2091.47
Cash	0.16
	8720.87

Audited: 13:01:03
J. Watson
(J.C. WATSON,
KIRKALL)



RECORDERS & RECORDING, ORKNEY, VC111, 2002 UPDATE

Please read carefully for any alterations since the last OFC *Bulletin*.

NOTES

No records should be published until verified by the appropriate Recorder. If in doubt, please consult OFC Biological Records subcommittee. With few exceptions, Orkney County Recorders submit copies of their records to their appropriate national specialist society and to OBRC.

ABBREVIATIONS:

A.Rec. = Assessment of Records; BM/NH = British Museum, Natural History; BSBI = Botanical Society of the British Isles; DL = Definitive Lists; Hb.Ab. = Aberdeen University Herbarium; Hb.Ed. = Royal Botanic Garden, Edinburgh; Hb.Kew = Royal Botanic Gardens, Kew; N/N = *The Natural History of Orkney*; OBRC = Orkney Biological Records Centre; OCL = Orkney County Library; OFC/BR = Orkney Field Club/ Biological Recording subcommittee; OIC = Orkney Islands Council; ONHS = Orkney Natural History Society, Museum, Stromness; Rec. = Recorder; SOC = Scottish Ornithologists Club.

LIST OF RECORDERS

FUNGI, including MYXOMYCETES, slime fungi. Rec.: Tom Egging, Stackaldbrae, Downies Lane, Stromness, Orkney, KW16 3EP. DL, N/N, Up.: OFC *Bulletin*. A.Rec.: Hb.Ed. Voucher specimens are held in Hb.Ab., Hb.Ed. and Hb.Kew. The current list is held by OBRC.

MARINE ALGAE, seaweed. Rec.: Dr Martin Wilkinson, Department of Biological Sciences, Herriot-Watt University Riccarton, Edinburgh. DL, N/N.

FRESHWATER ALGAE. Rec.: Eileen Summers, OIC, Environmental Unit, Harbour Authority Building, Scapa, Orkney, KW15 1TB.

CHARA, stoneworts. Rec.: Effy Everiss, Rosebank Cottage, Harray, Orkney, KW17 2JA. DL, N/N. Specimens must be preserved quickly, so please rinse, and press until really dry before posting.

LICHENS. Rec.: Dr D. H. Dalby, 2 West Park, Stanley, Perthshire PH1 4QU. Voucher specimens and recording materials held in OFC Archives.

BRYOPHYTES, mosses and liverworts. Rec.: Rosemary McCance, West End House, Burray, Orkney, KW17 2SS. DL, N/N.

VASCULAR PLANTS. Rec. (BSBI): E. R. Bullard, Toftwood, Kirkwall, Orkney, KW15 1SB. DL, N/N. Records in *Watsonia* and OFC *Bulletin*. A.Rec. Voucher specimens in Hb.Ed. An Orkney *Flora* is in preparation; also Threatened Species database and local Scarce Species. Please be sparing in collecting any plant material for identification, 'critical' species require identification by the national Referees.

ROSA SPECIES. Rec.: Hugo Shearer, Cromwell Road, Kirkwall. Referees usually require specimens of fruit, mature foliage and pieces of stem showing prickles.

MAMMALS (excepting seals, bats, cetaceans). Rec.: Tim Dean, Echna View, Burray, Orkney. DL, N/N. Up. OFC *Bulletin* and Stromness Museum. Records, including bones, etc., can be accepted, with full details.

BATS. Rec.: Chris Booth, Ronas, 34 High Street, Kirkwall. DL in Booth, C. and J. (1994), *The Mammals of Orkney*. Up. OFC *Bulletin*.

SEALS. Rec.: Lesley Sinclair, Riff Cottage, Rendall, Orkney, and KW17 2PB.

CETACEA, whales and porpoises. Rec.: Chris Booth (see above). DL in *The Mammals of Orkney*, op. cit. Up. OFC *Bulletin*. A.Rec. if required - National Museum of Scotland, Edinburgh.

BIRDS. Rec. (SOC): Jim Williams, Fairholm, Finstown, Orkney. DL in Booth, C. J., M. F. Cuthbert and P. Reynolds (1985), *The Birds of Orkney*, The Orkney Press. Up. *The Orkney Bird Report* (published annually). A.Rec.: national rarities, The British Birds Rarities Committee; Scottish rarities, The Scottish Birds Records Committee; local rarities, The Orkney Records Committee.

AMPHIBIA and REPTILES, toads, etc. Rec.: Chris Booth (as above). DL *The mammals of Orkney*, op. cit. Up. OFC *Bulletin*. A.Rec. by Recorder.

JELLYFISH. Rec.: Tim Dean, Echna View, Burray, Orkney. DL, N/N.

LAND and FRESHWATER MOLLUSCS, slugs and snails. Rec.: Mrs N. F. McMillan, The Nook, Uplands Road, Bromborough, Wirral, Merseyside, CH62 2BZ. DL to 1985 in OCL. Successor requested, as Mrs McMillan would like to retire as Recorder, though she would be happy to continue as Referee.

MARINE MOLLUSCA, seashells. Rec.: Alan Skene, The Mount, Stromness. DL, N/N.

ISOPODA, slaters. No recorder at present..

HIRUDINIA, worms, leeches, etc. Rec.: none at present. DL, N/N.

COLEOPTERA, beetles. Rec.: Keith Fairclough, Viewforth, Swannay, Birsay. DL, N/N. A.Rec. recognised experts. Keith has Vincent Lorimer's Beetle collection and notes.

ODONATA, dragonflies and damselflies, adults and larvae. Rec.: Keith Fairclough (as above). DL, N/N. Up. OBRC and OFC *Bulletin*. For species already on the Orkney list, a written or verbal record (to Keith), with full details, will suffice. If new species, ideally a photograph, or, at least, a FULL description.

ANTS. Rec.: Keith Fairclough (as above).

BEEES. Rec.: John Crossley, North Flaws, South Parish, South Ronaldsay, Orkney, KW17 2RW.

WASPS. Rec.: Chris Booth (as above). DL: see note in OFC *Bulletin* No. 1/1986. Up. OFC *Bulletin*. A.Rec. to be confirmed by Dr M. E. Archer, York.

ORTHOPTERA, grasshoppers. Rec.: Keith Fairclough (as above). DL, N/N. Acceptance of records as for Odonata (above).

CADDIS FLIES, adults and larvae. Recs.: R. Andrew, Millfield Cottage, Costa, Evie, and J. Walker, Twargarn, Harray. DL, N/N, BRC Monks Wood. Up. BRC Monks Wood, OFC *Bulletin*. Also MAYFLIES, adults and larvae, and HOVERFLIES, adults.

DIPTERA, true flies. Rec.: R. Andrew (as above). A.Rec. by comparison with named material in reference material reference collections; and to BM/NH. Also FLESH FLIES, BLOWFLIES and PARASITIC FLIES.

STONEFLIES. Rec.: R. Andrew (as above). DL, N/N. Up. OBRC and OFC *Bulletin*.

LEPIDOPTERA, butterflies and moths. Rec.: Sydney Gauld, Quoyberstane, St Ola. DL, N/N and in Lorimer, R. I. (1983), *The Lepidoptera of the Orkney Islands*, E. W. Classey Ltd, Oxford. Up. OFC *Bulletin*. Voucher specimens, The Royal Museum of Scotland.

ARACHNIDA, spiders. Rec.: Edward Milner, 80 Western Park, London N8 9TB. DL, N/N.

GENERAL ADVICE

All records are worthwhile. The essential four pieces of information, accompanying all records, must be:

- WHAT
- WHERE (including grid reference if possible)
- WHEN
- WHO BY

Record cards can be obtained from the Recorders listed above. Records, including completed cards, should be sent to the appropriate Recorder. If no Recorder is listed, send records to OBRC. A stamped, addressed envelope is appreciated if you want a reply, and is necessary where specimens have to be sent for identification. Be sparing in collecting specimens. If in doubt, and you would like more information about records on a particular plant, bird, mammal or invertebrate, ask the appropriate County Recorder.

Both OFC/BR subcommittee and OBRC hold details of recording schemes for a large assortment of plants and beasts. Many of the organisers welcome and help beginners, so why not 'take up' something? Details are also available of helpful textbooks and study courses.

OFC/BR subcommittee and OBRC may be addressed c/o The County Library, Laing Street, Kirkwall, Orkney, KW15 1NW. e-mail: biodiversity@orkney.gov.uk.

NOTES FOR CONTRIBUTORS

1. All contributions (2002/2003) should be addressed in the first instance to:
OBRC Bulletin
C/o The County Library
Laing Street
Kirkwall
Orkney
KW15 1NW.
2. Last date for contributions: 20th. February 2004.
3. Contributions on all subjects relating to the natural and cultural environment of Orkney are welcomed.
4. Contributions are accepted in any of the following forms, but must be accompanied by a printout of the contribution:
 - PC disc – text, or any universally accepted format such as Microsoft Word or Word Perfect;
 - Macintosh format – only as text file;
 - E-Mail – as text or as an attached file conforming to PC and Mackintosh requirements. E-mail addresses for editorial subcommittee members are available from the OFC Secretary.
 - Hard copies can be scanned by the editorial committee;
 - All graphs, illustrations, tables, maps etc., to be in black line (no pencil), preferably twice finished size, or at least capable of some reduction. If on disc, for tables etc., please use tabs (not spaces), or use table function, or spreadsheet format. The OFC house style can be obtained from the OFC editorial subcommittee.
5. The current *Bulletin* is edited collectively by the editorial subcommittee of the OFC. Any facts or opinions expressed in the *Bulletin* are the sole responsibility of the contributors, Orkney Field Club and the editors of the *Bulletin* cannot be held responsible for any loss sustained in reliance therein.
6. The convenor of the editorial subcommittee is David Peppitt
7. Contributors to advise the OFC editorial subcommittee on how many complimentary copies they require.

The editorial subcommittee would like to thank all contributors to this issue of the *Bulletin*, and to all OFC Members who assisted in its publication.



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