

THE ROAD TO THE ISLES

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1979 annual report Pt 2

At the start of the 1979 report there was a comment from the editors-
“(long lists of species are interesting but pure purgatory for a non-scientific typist)”

DAVE AND ANGIE

Having seen the list of lichen flora of S E Islay at the end of the report, I can see what they mean! The character recognition software may have got it spot on, but I'm not prepared to check each Latin name against the original report to confirm that, so they are include only as a 'photocopy' of the list and as such are not searchable.

Nick

I paused in the Heathrow departure lounge, and parked my rucksack on the heel of a bustling businessman. His thin cry was lost in the cacophony of the international determination to be somewhere else.

In my case this was Scotland in the cause of SHS freight transport - but first Leeds where the Society's loads of food and equipment originate. Not for me the Tristar on Gate 5 bound for Paris, nor even the smaller job headed for provincial cities, but a modest Viscount to Yeadon - known less attractively as Leeds/Bradford airport.

Several tins of warm beer in the company of a returning concrete technician from Gabon made for a cheery if unsteady meeting with John and June Round, my hosts for stage One.

Teamed up with Mike Hayward, who arrived towards opening time on the evening of my arrival in Yorkshire, we were set for Stage Two - collect one large orange lorry and drive to Fort William to meet the freight car good old BR had hauled up there earlier in the week. Could we make the Ballahulish Hotel before closing time? With a good take off run up the M6 we reached cruising altitude round about Crianlauch. Following a frightening descent down Glencoe with Captain Hayward cast in the role of automatic pilot we applied reverse thrust at the Ballahulish bridge, fetching up against the back bar of the hotel at 2130 hours. Not bad.

Then the work started. The objective was to unload three loads of food and equipment, each sufficient for two expeditions, from the over-stuffed freight car at Fort William and deposit each one at the appropriate expedition jump-off point: Kennacraig, Glenfinnan and Ullapool in that order. Simple.

Well that's what we thought, but the SHS is not like that (You're telling us? ED) Jura's marquee pole got buried under loads two and three and didn't go to Kennacraig. Lewis' paddles went to Loch Shiel due to an excess of zeal, and I strongly suspect someone had two tool kits and someone none. After one exhausting day we reloaded the van ready for the next run and set off like a close-hauled yacht - very much to one side. Nothing for it but to stop and repack.

Without the help of the Loch Shiel and Lewis advance parties matters would have been a little severe. Many thanks for your help, lads.

However, it all got done, and despite the awful weather there were lighter moments - usually marred by Hayward popping up with his wretched camera. A chap couldn't strike a silly pose without posterity knowing about it.

I am sure we were remembered. There was the attendant in the Fort William Station Super Loo doing a roaring trade in showers; the climbing shop owner in Inverness descended on as he opened his shop "Sell us some paddles."; the tea shop girl somewhere south of Oban "What, all of you!" and the narrowly missed policeman (and police car) somewhere north of Oban "Phew, Jimmy!"

But with an overnight dash back to Kennacraig to put that marquee pole in the ferry behind the Jura expedition the task was done, and I turned for Leeds again, thinking of Nick Deeley who had to come and fetch all the stuff back again.

Back on board the venerable Viscount, and heading through gin-hazed clouds back to London three slit-skirted chorus girls arranged themselves across the aisle. Exhaustion dampened my interest but before I dozed off I noticed the spectacles of the small man wedged in a seat between two of them gradually steam up.

(David, what were you doing on that plane - Mrs. Ed)

PETER LIVER



"TWENTY YEARS ON...." THOUGHTS ON RHUM 1959

All good members of the SHS should raise their glasses and toast a production of "Judgement Day" produced by the St. John's School, Leatherhead Dramatic Society in December 1957. Had it not been for the school play Peter Parks and I would never have been drinking sherry 'cheap, British Vine Products but fabulous value at 6s a bottle... sorry, 30p in your money) under the stage on the last night and planning how to spend our first long summer vacation from university, then a year and a half away. And if we had not been offering sherry Daz Underhill would not have stayed behind for so long that he had to climb out of the changing room window sometime after midnight. For it was in the early hours of a December morning that the three of us first decided to go on an expedition and, rather like Christopher Robin, started our preparations as if we were going to the North Pole. On the principle that an army marches on its stomach I volunteered to look after the food....

As much planning must have gone into the organising of that first Rhum expedition in 1959 as the entire society now spends in sending twenty times the number of people to the islands each season. Every map of the Hebrides was bought and studied, travel books and encyclopaedias were read and reread, and menus for a veritable army were drawn up. In those days expeditions were scarcer commodities than they are now. Much of our food came free as a result of letters to various manufacturerswe had two crates of Lee and Perrins Worcester sauce (why I still can't think), large quantities of baked beans, several boxes of swiss Knorr powdered soup and several boxes of Penguin chocolate biscuits. In addition to crates of Izal toilet paper we managed to get gifts from Scottish breweries sufficient to give each member two large cans of MacEwans Export a day.' Fresh meat was no problem with venison being provided at Kinloch Castle at 6d a pound (sorry, about 11p a kilo) provided we took at least half a carcass at a time! Nor was there a shortage of washing powder- photographs of the expedition landing on the beach at Shahman Insir are dominated by the crates of Daz, Persil and Omo.

So much of what happened to us on that first Rhum expedition must have been repeated so many times in subsequent years to others. It's strange, but marvellous, to realise that from the original ten of us thousands of others have experienced similar thrills on Rhum, South Rona, Raasay, The Uists, Colonsay, Jura, Lewis and many other Hebridean islands. Yes, our tents did get blown down - and badly torn - and our sleeping bags were soaked. We were mobbed by midges and we did get bored with our venison steaks for breakfast lunch, dinner, tea and supper. But we did watch with awe as the early morning clouds lifted off the Cullins on Skye across the deep blue sea of the Sound of Rhum, and we did sweat our way up Hallival and Askival in search of Manx Shearwaters.

Our scientific programme started as research on the Red deer parasites, but ended with the parasites on seagulls. Does anyone remember 'Snowy' – that enchanting little bundle of feathers that used to strut around the marbot? We thought we were going to spend the rest of our days on Rhum when the "Clansman", a boat belonging to Bruce Watt, was 18 hours late in collecting us

It was a great expedition and I'm very glad that we were able to share our enthusiasm with others so that the Society, which was not really thought up until a year or so afterwards, has been able to introduce so many others to the delights of Hebridean expeditions. Long may it continue to do so!

"Up in Rhum, where it's nice to come
And the sun shines sometimes on the mountain tops
I took a trip in a fishing ship
And when I reached Shahmon Insir I had to stop
But sad to say I'm on my way
Won't be back for many a day
My heart is sad, my feelings are bad
I've left my heart in our camping ground"
(With apologies to the boatmen of Jamaica from whom this was borrowed in 1959, and never returned!)

JOHN ABBOTT



JOIN THE PROFESSIONALS (?)

"How on earth did you become involved with the SHS?"

It was in a Chemistry Lab cum Appeal Office at Manchester Grammar School that I was introduced to a tall, dark young man, a bit thin on top even then, who was looking around (his eye on the main chance) with a view to becoming assistant M.G.S. Appeal Director. Little did I know then what my association with him would lead me into?

Soon to become Appeal Director himself, John Abbott acquired a couple of secretaries! Then began the tales of expeditions to Iran, to the Shetlands and to sites in the Hebrides that we had never heard of, let alone could spell correctly! A school expedition to Iran, led by John, gave me my first insight into the administration of such an undertaking and it seemed quite natural that SHS business should gradually insinuate itself into the work of the Appeal Office, soon to be transferred to 19, Moss Lane, where we found we'd be doing SHS work at night and Appeal work by day. When John arrived with a pile of SHS stationery and envelopes and copies of back numbers of Reports I knew that my fate was sealed - for how long I never dreamed!

Names of Board Members were becoming familiar to me - Richard and Cliff Fountaine, Martin Child, Daz Underhill, Chris Dawson -I remember John Hutchison coning with the Abbott one day - a Conference at Oxford; car loads of boys going down the Motorway; Himself dictating piles of letters urging everyone to work hard and take on more jobs, then dashing off to Ireland assuming everything would be done.

In 1971 Phil Renold became Chairman and I believe the Board had been thinking of getting some secretarial help for some time. John had been talking about it for ages. A 'Permanent Secretary' they wanted and terms of reference were drawn up. But who would have this glorious title and the responsibility of addressing hundreds of envelopes?

Well, John wasn't made Appeal Director at M.G.S. for nothing -he had great powers of persuasion and the flair for getting things done and I was right there! and near enough to the new Chairman to be able to do some of his work, too. SO - I became involved and more and more so as the time passed. It took no time at all to fix up an office in the spare room. How many of you remember that ancient Banda? It must have been their first model - It weighed a ton! We used to cart it to Devon in the holidays! A strong cardboard box sufficed for a filing cabinet; fortunately I already had a decent typewriter.

Now, of course, it was Phil Renold coming in; dashing from Saddleworth after school, dictating letters and dashing back to some party or other. Running short of petrol one night, he called at a garage, poured it over himself instead of in the car, called at M & S for some new clothes and arrived reeking of petrol; had a shower, put on new clothes, had some tea and, I suppose, did some work and was off again by 7.00 o'clock.

That Conference at Reading when I was picked up by Phil in a hired minibus full of chattering boys! The weather was terrible and we arrived as dinner was over. Conference at, Leicester -driven by Paul in his car which kept breaking down and I swear was held together by bits of string! Gales and snow! What had I done to deserve that?

Roger is Chairman now and we never did get round to sending tapes back and forth. He manages without a SHS secretary (no doubt he finds one of his own - all Board members should find and keep secretarial girlfriends). Life is more civilised now - we no longer have to dash from Board Meetings to catch the Manchester train just as it is moving out. I get a lift to Surbiton where I stay the night and travel back at my leisure the next day. I have a real duplicator to play with, a real filing cabinet, purloined from my husband, and a room full of box files, stationery, prospectuses and reports, and copies of all those circulars I keep sending out.

Now, sadly, after ten years of SHS (seven as official secretary) I shall be retiring in September, to savour fully the joys of grandmother-hood, and ego et rex meus say au revoir, but not goodbye, to the scores of marvellous SHS friends we have made.

MARY JONES

THE LICHEN FLORA OF SOUTH-EAST ISLAY

The rugged, sharply indented coastline or south-east Islay defends a bewilderingly varied area of natural beauty, stretching from the peninsula of Ard Iroersay near Ardbeg in the south to the shingle-swept Claggain Bay in the north. Geologically, the region is composed of Dalradian strata belonging to the Islay Quartzite Series, comprising folded metaquartzites, slates and phyllites. Here and there basic dykes of Tertiary age add to the diversity of the island landscape.

The vegetation is a patchwork of sheltered woodlands surrounded by vast stretches of open moorland, rising to over 1700 ft. in the north-west. The range of habitats offered by these communities is complemented by the dynamic processes operating along the coastal belt. Local variations in alkalinity create new and exciting niches to challenge the evolutionary adaptability of these pioneering specialists - the lichens.

The ornamental woodlands of Kildalton are the largest of their kind on the island, with fine collections of native oak and beech. They are especially rich in oceanic species of corticolous lichens such as *Lobaria*, *Sticta* and *Pseudocyphellaria*. A record number of epiphytes totalling seventy species was noted from one Sycamore.

To the north the composition of woodlands changes dramatically to dominant oak, with hazel, birch and alder in support. These are raised high above the water table of the surrounding moorland on steep rocky outcrops. Such spots, too remote to be of any economic use, carry a remarkable diversity of plant life. Some of the sites we visited were beset by deep rocky chasms thickly covered with bryophytes, providing ideal conditions for the development of muscicolous lichens. Here we found *Gyalideopsis* attached to the moss *Rhytidiadelphus loreua*. Hazel supported one outstanding community dominated by the Western *Thelotrema subtile* and *Lecanactis homalotropum*. This was where we discovered *Opogon ocellulariaea* a very rare species, and this only the second find ever.

Large tracts of the area are dominated by wet, acid moorland, rich in *Cladonia* spp. At Beinn Bheigeir *Cetraria islandica*, *Cladonia bellediflora* and *Fuscidea cyathoides* occur in pockets of scree around the summit. The coastal rocks forming the bays and peninsulas of Kildalton and Ardistry show perfect zonation of maritime species and, although there were no surprises in store, some rewarding finds were made. In particular, *Haematomma coccineum*, *Pannaria microphylla* and *Dermatocarpon fluviale*. Only two species of marine *Verrucaria* were found.

Many species of lichen were commonly encountered, but few will forget the most ubiquitous - or will they? Try *Rhizocarpon geographicum*.

VINCE GIAVARINI

SPECIES LIST

* = recorded outside S.E. Islay

- Acrecordia bifermis* (Berr.) Arnold - occasional on mossy trees. Noted on sycamore and oak.
- A. Gemmata* (Ach.) Massal - frequent in the same habitats as *A. Biformis*.
- Anaptchia fusca* (Huds.) Vainie - abundant on coastal rocks.
- Arthenia lurida* Ach. - occasional on smooth hazel bark.
- A. spadicea* Leight - frequent on mossy oak in shade.
- A. tumidula* (Ach.) Ach. - widespread on smooth hazel bark in dense stands.
- Arthopyrenia halodytes* (Nyl.) Arnold - common on barnacles (*Balanus* sp.) and limpets (*Patella* spp.) in littoral zone.
- A. punctiformis* (Pers.) Massal - frequent on smooth bark.
- Arthothelium ilicinum* (T.Tayl) P. James - frequent on smooth bark of holly and corylus.
- Buellia griseovirens* (Sm.) Almb. - scarce on smooth bark of birch.
- B. punctata* (Hoffm.) Massal - widely distributed on trees and rocks.
- Caloplaca citrina* (Hoffm) Th.Fr. - local on mortar. Wall at Kildalton Chapel.
- C. ferruginea* (Huds.) Th.Fr. - * scarce on alder. Wood by Claggain River.
- C. marina* (Wedd.) Zahlbr. - widespread on rocks in littoral zone and above hwm.
- C. thallicola* (Wedd.) Du Rietz - common on rocks along the coast.
- Candelariella aurella* (Hoffm) Zahlbr. - local on mortar. Kildalton Chapel.
- C. vitellina* (Hoffm.) Mull.Arg. - occasional but possibly overlooked on walls by farms.
- Catillaria atropurpurea* (Schaer.) Th.Fr. - frequent on mature oak and sycamore.
- C. chalybeia* (Borr.) Massal - * sparingly distributed on rocks but probably overlooked.
- C. griffithii*(Sm.) Malm - common on mature rough-barked trees including conifers.
- C. lightfootii* (Sm) Oliv. - rare, on wood palings opposite Coille nam Bruach.
- Cetraria chlorophylla* (Willd) Vain - occasional on old trees in woodland.
- C. islandica* (L) Ach. - * frequent amongst scree above 1500 ft Beinn Bheigeir.
- Cladonia arbuscula* (Wallr) Rabenh - occasional on acid moorland.
- C. cervicornis* (Ach.) Flot. - scarce, on peat.
- C. chlorophaea* (Flörke ex Sommer) Spreng. - common on soil and tree bases.
- C. ciliata* Stirton - occasional on wet moorland.
- C. coccilfera* (L) Willd. - occasional on peaty soils.
- C. coniocraea* (Flörke) Spreng. - frequent on tree bases and soils in woodland.
- C. digitata* (L) Hoffm. - widespread, tree boles in woodland.

- C. floerkeana* (Fr.) Sommerf. - widespread, peaty soils.
C. furcata (Huds.) Schrad. - locally abundant at high and low altitudes.
C. portentosa (Dufour) Arnold - widespread on wet moorland.
C. macilenta Hoffm. - common on tree boles.
C. pityrea (Florke) Fr. - scarce, on soil.
C. polydactyla (Florke) Fr. - frequent on decaying wood around Kildalton.
C. pyxidata (L.) Hoffm. - occasional on dry soils of walls.
C. squamosa var *subsquamosa* (Nyl. ex Leighton) Vainio - occasional mossy trees and peaty soils in chasms.
C. subcervicornis (Vain) Kernst. - * frequent above 1000 ft Beinn Bheigeir.
C. uncialis (L.) Web. - abundant on wet peat.
Collema flaccidum (Ach.) Ach. - scarce, on maritime boulders above hwm. Below An Dun, Loch a' Chnuic.
C. furfuraceum (Arnold) Du Rietz - rare, on ash, Loch a' Chnuic.
C. tenax var. *ceranoides* (Borr.) Degal - * local, on dunes, Laggan Bay.
Cornicularia aculeata (Schreb.) Ach. - * scarce, on Beinn Bheigeir, probably overlooked.
Cystocoleus niger (Huds.) Hariot - local, on basic dyke above hwm, Loch a' Chnuic.
Dermatocarpon fluviatile (Wigg.) Th.Fr. - scarce, wet rocks, Ardilistry Bay.
D. Lepaticum (Ach) Th.Fr. - occasional in S.E. Islay, common on The Ga.
D. miniatum (L) Mann. - sparingly distributed on the coastal rocks at Ardilistry Bay, abundant at Port Askaig.
Dimerella diluta (Pers) Trevisan - scarce on shaded, aged grees in woods, Kildalton.
D. lutea (Dickson) Trevisan - local, similar habitats to *D. diluta*, often spreadint to mosses.
Diploicia canescans (Dickson) Massal - occasional wells near farms, Kintour.
Enterographa crassa (P.C.) Fee - frequent, shaded bark of mature trees.
Evernia pruniastri (L) Ach. - widespread on bark of trees in sheltered woods.
Fuscidea cyanthoides (Ach) V. Wirth & Vezda - * frequent at high altitudes. Beinn Bheigeir.
Graphina anguina (Mont) Mull, Arg. - scarce on smooth bark.
Graphis elegans (Borr. ex Sm) Ach. - frequent on bark.
G. scripta (L) Ach. - occasional on smooth bark.
Gyalideopsis musicola (?) - very local on mosses by wet gullies in exposed woodland.
Haematomma coccineurs (Dicks.) Korb - local in dry recesses along the coast. Ardilistry Bay.
H. elatinum (Ach.) Massal - frequent, rough bark. Seen on oak, beech and sycamore.
Huilia albocaerulescens (Wulfen) Hertel - common on rocks everywhere.
H. macrolarpa (OC) Hertel - widespread, rocks.
Hypogymnia physodes (L) W. Wats. - common on twigs, wood palings, heather and peat.

- H. tubulosa* (Schaer.) Hav. - frequent on twigs and palings.
Icmadophila ericetorum (L) Zahlbr. - * scarce, on peat near Bunnahabhainn Bay.
Leconactis abietina (Ach.) Korb - scarce, dry recesses on alder bark in deep chasms.
L. homalotropum (?) - scarce, on hazel.
Lecanora campestris (Schaer.) Hul. - widespread on walls.
L. carpinea (L.) Vain - occasional, smooth bark.
L. chlorotera Nyl. - common on bark and wood.
L. confusa Alb. - widespread on smooth bark and palings.
L. conizaeoides Nyl. ex Cromb. - local, on bark.
L. dispersa (Pers.) Sommerf. - widespread, walls.
L. expalleus Ach. - common on smooth bark or wood.
L. jomesii Laund. - occasional, smooth bark, especially sallow.
L. muralis (Schredb.) Rabenh. - scarce, entrophic rock by sea.
L. polytropa (Hoffm.) Rabenh. - occasional on rocks.
L. rupicola (L.) Zahlbr. - frequent on rock.
Lecidea cinnabarina Sommerf. - scarce, shaded bark in woods.
L. granulosa (Hoffm.) Ach. - common, peat and tree stumps.
L. lactea Florke ex Schaer. - occasional rocks and shingle.
L. lucida (Ach.) Ach. - occasional, sheltered side of walls.
L. synnicta (Ach.) Ach. - frequent, wood palings.
L. tumida Massal - occasional on rocks.
L. uliginosa (Schrader) Ach. - frequent on bark in humid woods, peat and driftwood.
Lecidella eleochroma (Ach.) Choisy - common on smooth bark and wood.
Lepraria candelaris (L.) Fr. - occasional in dry bark crevices.
Lepraria incana (L.) Ach. - common on shaded bark or on walls
Leptogium britannicum (?) - scarce, dunes Laggan Bay.
L. burgessii (L.) Nant. - scarce, trees, Kildalton.
L. lichenoides (L.) Zahlbr. - widespread on mossy bark.
Leptoharpis epidermis (Ach.) Th.Fr. - occasional, birth bark.
Lichina confinis (Mull) Agardh. - frequent in littoral zone.
Lobaria laetevirons (Light) Zahlbr. - widespread on bark.
L. pulmonaria (L.) Hoffm. - widespread on bark of mature trees.
L. scrobiculata (Scop.) DC - occasional, aged trees.
Micaria bauschiana (?) - scarce
M. cinerea (?) - scarce
M. degeneriae (?) - scarce
M. liguaria (Ach.) Hedl. - occasional on soil, The Ga.
M. longispora (?) - scarce
M. prasina (Fr.) Korb - uncommon, bark
Nephroma laevigatum Ach. - occasional, grassy verges and walls.
Normandina pulchella (Borrer) Nyl. - common, shaded bark, spreading to mosses.
Ochrolechia audrogyna (Hoffm.) Arnold - frequent, bark of mature oaks.
O. purella (L.) Massal. - common on walls and rocks everywhere.
Opegrapha atra Pers. - occasional, smooth bark.
O. ocellulariae (Coppins in ed.) - rare, on Thelotrama sessile hazel.
O. ochrochiela Nyl - local on bark of aged trees.
P. voria Pers. aggr. - occasional, mature beech and sycamore.

O. vulgata (Ach.) Ach. - frequent on smooth bark, hazel.
Pannaria microphylla (Sw.) Massal - scarce on basic dykes by the sea below hwm, Loch a' Chnuic.
P. rubiginosa (Thunb. ex Ach.) Del. - scarce on old mossy trees with rich lichen flora, Kildalton.
Parmelia capereta (L.) Ach. - widespread on bark.
P. conspersa (Ach.) Ach. - frequent on exposed boulders.
P. crinita Ach. - common on trees and rocks in woodland fragments
P. exasperata D.Nat. - * scarce, alder, Gleann Lecra
P. glabrata (Lavey) Nyl. - frequent, trees and wood palings
P. laevigata (Sm.) Ach. - common, trees and moss covered boulders.
P. omphalodes (L.) Ach. - abundant on rocks and boulders everywhere.
P. perleta (Huds.) Ach. - common on trees.
P. revoluta Florke - widespread, twigs and branches.
P. saxatilis (L.) Ach. - abundant on rocks, walls and tree branches.
P. subaurifera Nyl. - common on bark and twigs.
P. subrudecta Nyl. - widespread on bark.
P. suleata Taylor - common on bark and wood.
Parmeliella atlantica Degel - frequent on bark and twigs.
P. jamesii (?) - uncommon on bark of mature trees, Kildalton.
P. plumbea (L.) Vainio - occasional, walls and trees.
Peltigera comira (L.) Willd. - frequent, grassy slopes, dunes and soil.
P. colluria Nyl. - scarce, mossy bark.
P. horizontalis (Huds.) Baurig. - scarce, smooth vertical bark, Kildalton Castle Grounds.
P. polydaetyla (Neck.) Hoffm. - occasional, grassy rides.
P. praetextata (Florke ex Sommerf.) Zopf. - frequent, damp rocks and soil.
Pertusaria albescas (Huds.) Choisy & Werner - common on bark.
P. omara (Ach.) Nyl. - common on bark.
P. coccodes (Ach.) Nyl. - scarce on rock above hwm. Ardilistry Bay.
P. lymnea (Ach.) Schaer - occasional on bark.
P. leioplaca (Ach.) DC - occasional on smooth bark.
P. pertusa (L.) Tuck - common on bark in woods.
Phaeographis deditica (Ach.) Mull Arg - occasional on smooth bark, hazel.
Phlyctis argena (Ach.) Flot - common bark everywhere.
Physcia adscadeus (Th.Fr.) Olw. - occasional on rocks and walls.
P. aipolia (Ehrh. ex Humb.) Hampe - occasional, bark and twigs.
P. tenella (Scop.) DC em. Bitt. - common, rocks near hwm, and on walls
Physconia pulverulanta (Schreb.) Poelt - uncommon, branches of mature trees.
Placynthium nigrum (Huds.) Gray - common on walls.
Platismatia glauca (L.) Culb. & C. Culb - frequent, twigs & branches
Porina coralliidea P. James - uncommon on bark of aged trees.
Protoblastenia rupestris (Scop.) Steiner - local on mortar, Kildalton Chapel.
Pseudocyphellaria crocata (L.) Vain - occasional amongst mosses on old trees.
P. norvegica - scarce.
Pyrenothelia popillaria (Ehrh.) Nyl. - occasional on wet peat

Pyrenula macrospora (Deq) Coppins & James - common, smooth bark.
P. chlorospila (?) - common, smooth bark.
Racodium rupestre Pers. - scarce rocks with Cystocoleus niger.
Ramalina calicaris (L.) Fr. - scarce, twigs.
R. forinacea (L.) Ach. - common, twigs and branches.
R. fastigiata (Pers.) Ach. - widespread, twigs and branches.
R. siliquesa (Huds.) A.L. Sm. - abundant, coastal rocks.
Rhizocarpi constrictum Malme - frequent, maritime rocks.
R. geographicum (L.) DC - common on rocks everywhere.
Rinodina sophodes (Ach.) Massal - scarce on twigs.
R. subexigua (Nyl.) Oliv. - common on rocks and pebbles by the sea.
Solenopsora vulturioris Massal - occasional, maritime rocks.
Sphaerophorus melanocarpus (Swartz) DC - widespread, boulders and twigs.
Stenocybe pulletula (Ach.) Stein - frequent on Alder.
Stereocaulon dactylophyllum Florke - occasional, walls.
S. vesuvianum Pers. - occasional walls with S. dactylophyllum.
Sticta sylvatica (Huds.) Ach. - frequent on walls and mossy trees in shade.
Thelotrema lepidinum (Ach.) Ach. - frequent, smooth bark and woodland.
T. subtile (?) - local on hazel bark.
Tomasellia gelatinosa (Ach.) Zahlbr - occasional, birch & hazel twigs.
Tonia aromatica (Sm) Massal - occasional, mortar in walls.
T. coeruleonigricans (Lightf) Th.Fr. - occasional in SE Islay, abundant at The Oa.
Usnea subflorides Stirt - common on trees everywhere.
Verrucaria maura Wahleub ex Ach. - abundant, littoral zone below hwm.
Virigrescans Pers. - common walls.
V. sphinctrina Ach. - occasional on walls.
V. stiatula Wahleub ex Ach. - scarce, littoral zone with V. Maura
Xanthoria candelaria (L.) Th.Fr. - widespread, wood palings.
X. parietina (L.) Th.Fr. - abundant on coastal rocks.

ORNITHOLOGY ON ISLAY 1979

As Islay is so big, one cannot appreciate the full range of bird life which it harbours. On the expedition, however, I think a fair cross-section was seen. John Palmer and myself made up the main bird watching contingent, but Andrew Bishop also showed an interest. I think the most memorable occasion has to be the Choughs.

Other sightings included Black and Red Throated Divers, Manx Shearwaters, Pink-footed Geese, Hen Harriers to name but a few. As Islay is comparatively densely wooded many species associated with woodland were seen whereas they would be rare on other islands. Waders were varied and included Common Sandpiper, Curlew, Bar-tailed Godwit, Turnstone and Redshank. In conclusion I think I can say that Islay is probably one of the best islands in the Hebrides for ornithology.

Positive identifications were:

Black-thr. Diver	Golden Plover	Yellow Wagtail
Red-thr. Diver	Lapwing	Wren
Fulmar	Turnstone	Dunnock
Manx Shearwater	Dunlin	Chiffchaff
Gannet	Com. Sandpiper	Coldcrest
Shag	Redshank	Whinchat
Cormorant	Bar-tailed Godwit	Stonechat
Heron	Curlew	Wheatear
Canada Goose	Snipe	Robin
Pink-ft. Goose	Herring Gull	Blackbird
Whooper Swan	Comm. Gull	Song Thrush
Mute Swan	Lsr. b.b. Gull	Mistle Thrush
Shelduck	Gr. b.b. Gull	Coal tit
Mallard	Bl. headed Gull	Blue tit
Eider	Kittiwake	Great tit
Com. Scoter	com. Tern	Yellowhammer
Red-brst. Merganser	Razorbill	Chaffinch
Buzzard	Guillemot	Goldfinch
Hen Harrier	Bl. Guillemot	Greenfinch
Marlin	Rock Dove	Linnet
Peregrine	Collared Dove	Twite
Kestrel	Wood pigeon	Bullfinch
Red Grouse	Short-eared Owl	House sparrow
Black Grouse	Skylark	Starling
Partridge	Swallow	Magpie
Pheasant	Hse. Martin	Chough
Moorhen	Meadow Pipit	Hooded Crow
Oystercatcher	Pied Wagtail	Carrion Crow
Ringed Plover		Rook
		Jackdaw

JULIAN RAKE

GEOLOGICAL PROSPECTING
(LOCH SHIEL)

The rocks of the Loch Shiel area are schists and gneisses of the Pre-Cambrian Moine series, forming much of the West Highlands. These metamorphic rocks are derived from marine sediments which were eventually folded to form the Caledonian Fold Mountains, about 400 million years ago, and are thus the 'roots' of this chain, the overlying rocks having been removed by erosion denudation. The Highlands are mountains today only because of their relative resistance to denudation.

There are two main types of schist, both being banded - those derived from clayey sediments and those derived from sandy sediments. The former, to the east of Glenaladale, contain much glittery mica, allowing the rock to split into flagstones which are exploited by the SHS in bivvy shelter construction.

The latter type of schists west of Glenaladale is massive and contains less mica. Light quartz and feldspar predominates over darker ferro-magnesium minerals including garnets, the converse of the former types of schist's.

Some of the numerous intrusions of igneous rock were located with the aid of the 1:50000 geological map. In the Upland west of Glenaladale is a cone intrusion of appinite, attractively speckled green and white (hornblende and calcic feldspar). This outcrop in the form of irregular and broken concentric circles, and these were sampled to detect any variation, but none was found. Other small igneous bodies proved somewhat elusive.

South of Loch Shiel is the Strontian Granite with associated veins containing lead and other ores which were formerly worked commercially. The vein exploited by several shafts, on the road north of Strontian is up to 3 metres wide and consists mainly of barytes, a heavy white mineral, darker quartz, often in true crystal form, having grown without competition, and the lead mineral galena. This occurs as small silver-grey crystals within the barytes. The barytes and quartz often alternate in narrow bands. At one point at the vein edge fragments of granite are included in the vein material. At a solitary mine to the west of the main group are the much dilapidated remains of what appeared to be a crushing mill.

Nowhere was there noticed any significant relation between geology and relief, the rocks being relatively homogeneous as regards denudation, except where joints or faults are exploited by streams. Typical features of highland glaciation abound everywhere. In the larger glens, e.g. Glenaladale, river bluffs at varying levels indicate previous base-line levels or natural downcutting. The rate of processes, on the floor of Glenaladale including change in the course of the river, is illustrated by almost total disappearance of any buildings etc of the pre-1745 rebellion when 250 families were in residence.

BEN BUXTON

ISLAY LIMPET PROJECT

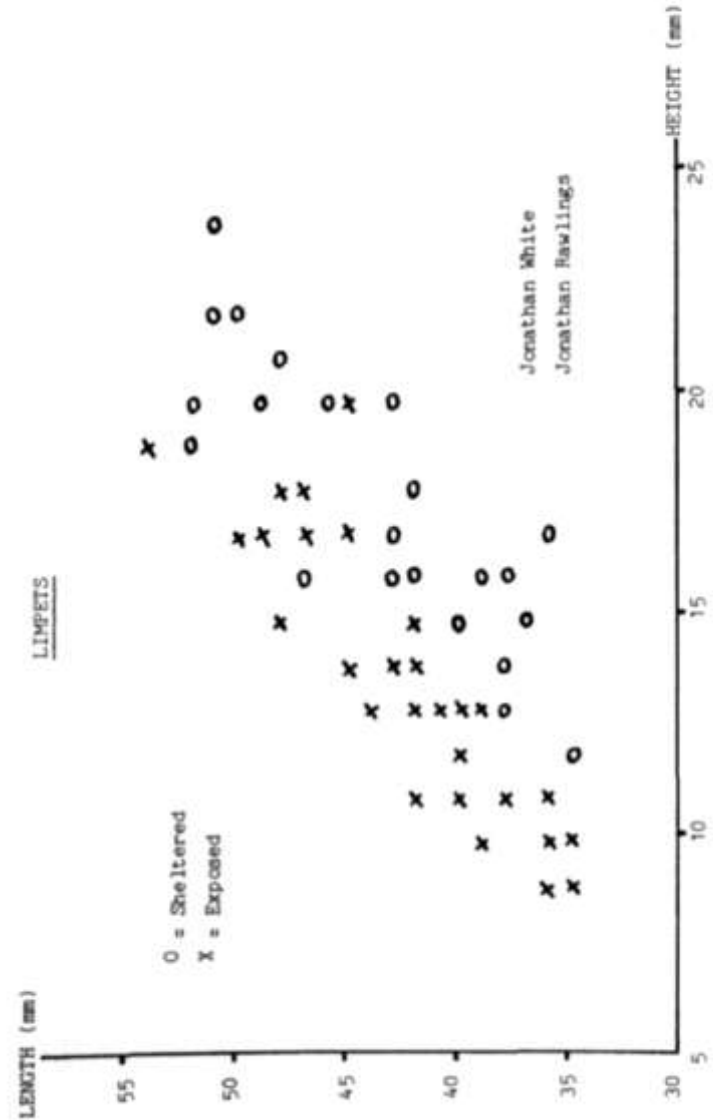
The aim of this project was to see if limpets on an exposed coast differed from limpets on a sheltered coast. We thought they probably would. To carry out our project we went to a small island south of Islay called Texa, here we were within easy reach of an exposed coast facing the Atlantic and a sheltered coast on the north of the Island facing Islay.

We thought that the limpets on an exposed coast would be wide and flat, and the ones on a sheltered coast would be higher and narrower than those on the exposed coast.

We took measurements of height and width of exposed limpets and then the same measurements for the sheltered limpets. We compared the measurements and found that we had assumed correctly. The next question we asked ourselves was why were the limpets flatter on an exposed coast than on a sheltered coast?

The reason is that on an exposed coast the limpet needs more surface area of rock to stick to or else the waves would knock them off. The reason for being flatter is so that the waves can wash over them rather than crashing into them. When we got back to camp we made a graph using the width and height as the two co-ordinates. The graph shows clearly the difference between the limpets and their subsequent distribution.

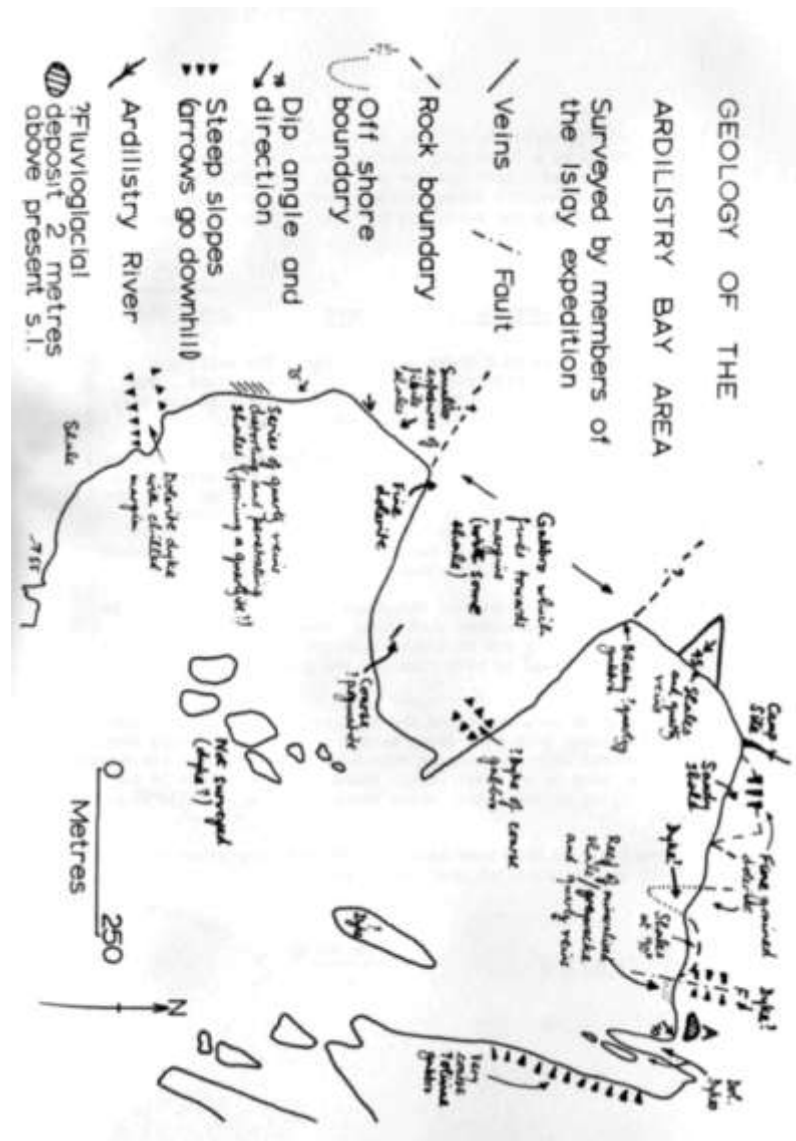
JONATHAN WHITE JONATHAN RAWLINGS



GEOLOGY OF THE ARDILISTRY BAY AREA

The following diagram is the result of the preliminary survey of the two small bays near the camp site, in which many members of the expedition took part. We had no access to 0.5. Geological maps or handbooks - perhaps the conclusions are inaccurate, but it was absorbing and very interesting. A parallel vegetation survey showed deciduous woodland on the gabbro, and mainly ferns and scrub on the shale. The most distinctive correlation was between relief and geology - the gabbro is much harder and has higher relief than the shale - and the bays are clearly carved out in the softer rock. It should be a foundation on which future expeditions could build: I have a collection of twelve rock specimens taken at the points indicated 1 to 12 on the map for further reference.

ROGER WEATHERLY



PROAIG

Proaig is an isolated croft, now derelict, on the east coast of Islay. There is a faint path leading from the road end at Ardtalla. It was a good site for a bivvy, and we all probably remember the wonderful sunset on our first night. The next day we spent exploring and surveying the site. These maps and account are the result.

INTERIOR OF PROAIG HOUSE

Now the house lies in a state of disrepair. The walls are covered with inscriptions dating back to the year 1940. The roof timbers, although sturdy looking, are missing at the very top of the roof. Slates still cover these timbers.

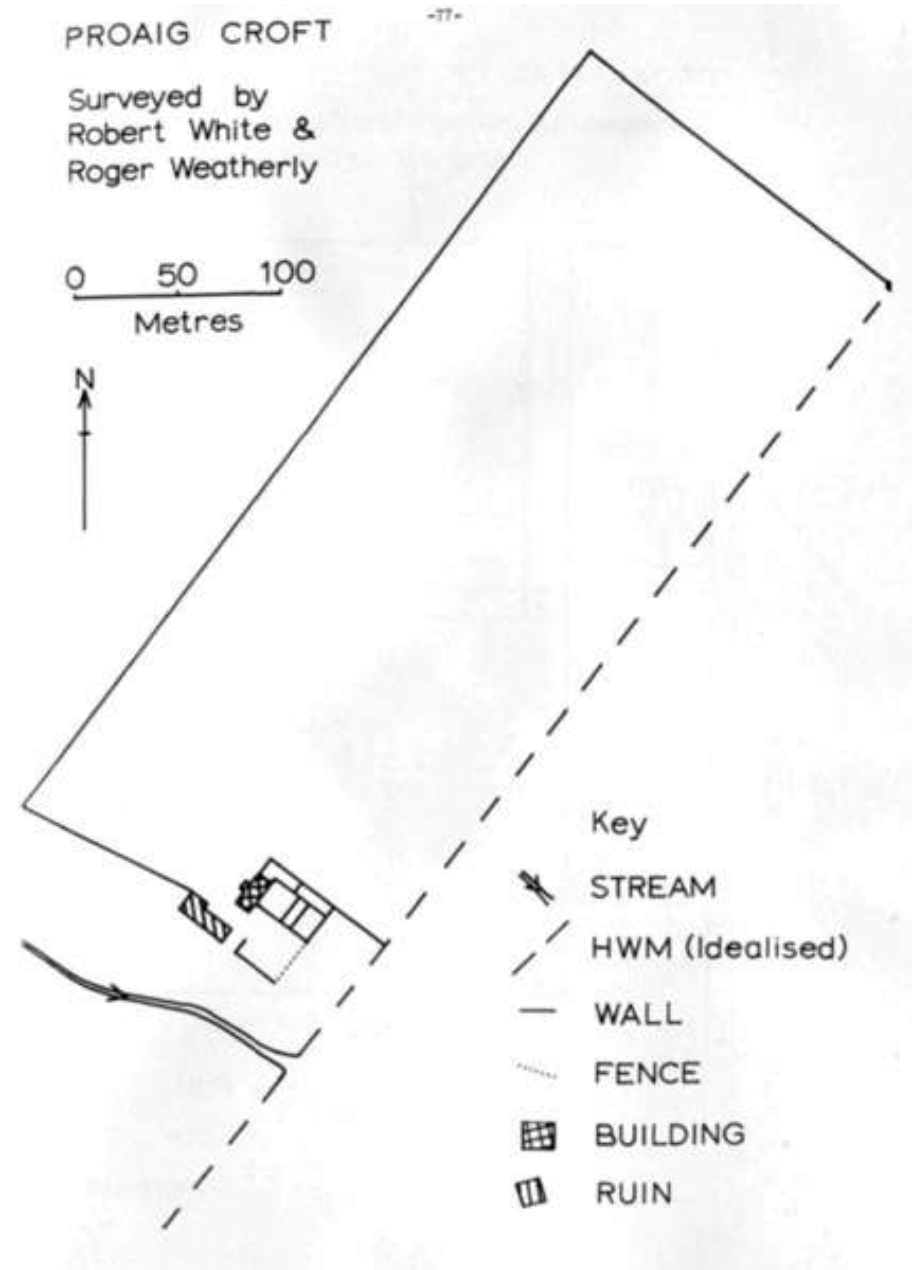
By looking at the fireplace in one of the two rooms, one can tell that it was the kitchen, for the chain which would have held a pot still hangs there. Remains of a range of cooking ovens are in this fireplace. This room would also have been slept in, because the ovens would give off necessary heat. Two alcove beds where the whole family slept can be seen. The walls would have had shelves and there would probably be storage space.

In the other room is another fireplace. This would probably be the sitting room furnished with pine. More storage space in the form of shelves and an alcove cupboard were found. There was wooden flooring in this room and one green tile, probably Victorian.

Plaster set on wood separated the two rooms. The sitting room and the kitchen both have doors making a porch. The front door opens inwards onto the sitting room door. In the porch coats would have been hung up on metal pegs. There is a small hole in the porch ceiling to the attic, where there would be valuable storage space.

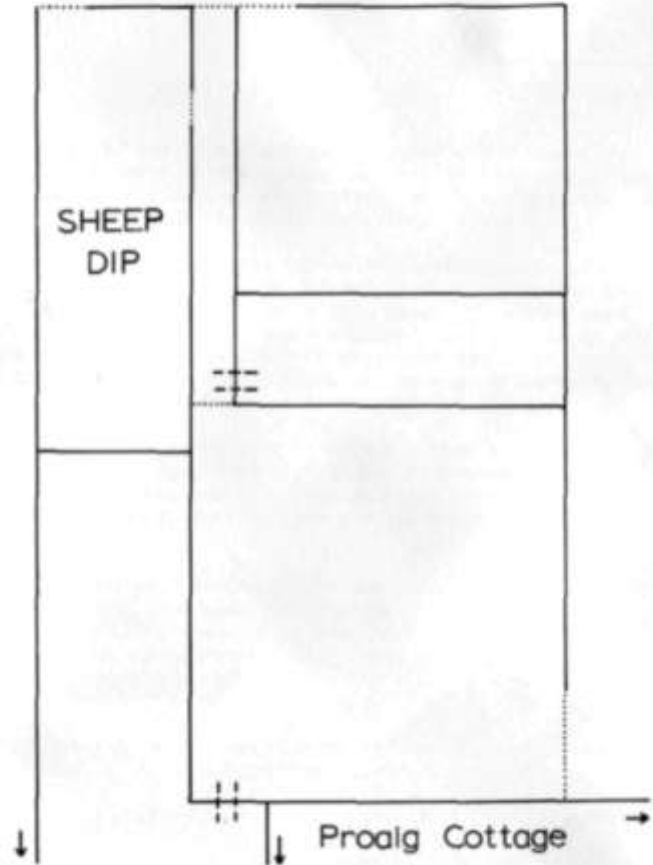
We were lucky to have been able to explore Proaig house and to see the way in which the crofters lived.

JOHN PALMER



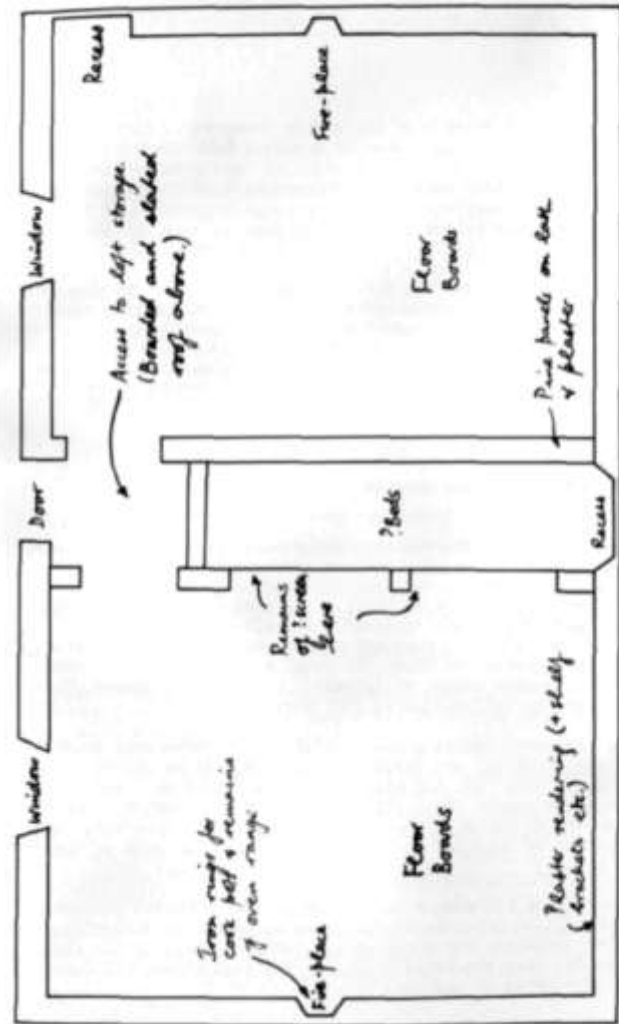
PROAIG PLAN OF ENCLOSURES

Surveyed by Kenny Crowe and Andrew Croucher



0 10
Metres

- Wall
- Gate
- == Sheephole



0 1
Metres

PROAIG COTTAGE, ISLAY
Research by Robert White
and Roger Weatherly

A RENEWED POPULATION CENSUS OF THE
MANX SHEARWATER 'PUFFINUS PUFFINUS'
BREEDING ABOVE 1900 FEET ON HALLIVAL, RHUM

Introduction

In 1965-69 Peter Wormell of the Nature Conservancy carried out an intensive census of the number of breeding Manx Shearwaters on the mountains of Rhum. On completion of this arduous task he estimated that there were 116,000 breeding Manx Shearwaters on the island. Rhum, therefore, contains a large proportion of Britain's population and is unique in that they nest in such terrain so far from the sea.

The aim of this census was to obtain an estimate of the number of breeding pairs now nesting on the island, for comparison with the census made a decade ago. Hallival, between Askival and Barkeval, rises to a height of 2360 feet and is made up of gentle slopes and boulder-strewn slopes. In these slopes the Manx Shearwaters excavate their burrows.

Method

The method we used was devised by Peter Wormell and may be explained thus:

In the presence of Shearwaters continuously visiting an occupied burrow there is a tendency for the surrounding soil to become exceptionally fertile, due to deposition of droppings. This fertile soil gives rise to thick grasslands, visible as green slopes, and thus termed 'greens'. Wormell mapped all these 'greens' onto a chart, then calculated the total surface area of all the 'greens' on Rhum. In total he estimated that there were 771.3 square chains of 'greens', of which 109 square chains were on Hallival above 1900 feet.

He then selected twelve plots on each of the three main mountains - Askival, Trallival and Hallival. On each hill he picked six plots above 1900 feet and six plots below 1900 feet. Each plot was one square chain (404 square metres). Next he counted the numbers of occupied burrows in each plot and determined the mean number of occupied burrows/square chains for each of the three hills.

By multiplying his mean x the number of square chains of 'greens' on each hill he was able to obtain an estimate for each hill. Thus he estimated the breeding population on each of the three main hills. His estimated total for Hallival above 1900 feet was 16,854 occupied burrows.

One main problem existed - the ground plot areas were incompatible with aerial map surface, due to the degree of slope. Therefore, counts on slopes were adjusted to horizontal projection whole numbers by the following formula:

$$N_2 = \frac{N_1}{\cos \theta}$$

N_1 = No of occupied holes/plot (counted on slopes)

N_2 = No of holes/plot area horizontal (correction)

θ = Degree of slope

Our team, consisting of Mark Banning, Mark Gyoparia, Andrew Jarrat and Dean Wooding, made two counting bivvies to Hallival. All counting was done on the north face, rising from above 1900 feet to just below the summit. Plots were randomly picked and in all eighteen were enumerated 17 plots of 10 x 10 and 1 plot 20 x 20)

Our method was as follows:

1. Total number of burrows in the plot
2. Occupied burrows were counted separately from empty burrows.

Because Wormell did all his work in square chains we had to convert our results. This was done by a simple calculation:

i.e. 1 sq. chain = 404 sq. Metres (approx)

So, if we knew how many occupied burrows were in 100 square metres we could estimate how many would be in 404 (i.e. how many occupied burrows per square chain)

Altogether we did plots totally 2100 square metres and reached a mean of 192 occupied burrows per square chain. We know from Wormell's work that there are 109 square chains of 'greens' above 1900 feet on Hallival. Our estimate of population, therefore is 192 x 109, giving a total of 20,928 occupied burrows. Density = 0.42 occupied burrows per square metre.

A decade ago Wormell obtained a mean of 154,633 occupied burrows per square chain and his estimate of population above 1900 feet was, therefore, 16,854. His density of burrows was 0.33 burrows per square metre.

Since 1965-69 there would thus appear to be a most substantial rise of 24 percent in the breeding population of Manx Shearwaters on Hallival peak.

Discussion

The count of 1965-69, a long-term study, should be more accurate than ours which was carried out over a few days. We assumed that the area of 'greens' on Hallival above 1900 feet was the same in 1979 as it was in 1975- It would be time consuming and costly to work out the new area of 'greens', so we decided to use the old figures which should not be all that different.

We used laborious counting methods, but I am confident that these were reasonably accurate. Occupied burrows were determined as those with fresh droppings, fresh earth and scattered feathers at the entrance. We found that smell was not a very good method; many burrows which were previously occupied had no detectable smell. One cause of inaccuracy is that adults frequently go down the wrong hole - it is also likely that young birds may visit burrows at night.

Our count would appear to indicate a substantial increase of the population on Hallival above 1900 feet. The 1978 count, carried out by the SHS on Hallival, showed the same trend. This increase could be attributed to a rapidly declining population on Eigg which has been blamed on rats. Rats, although present on Rhum in large numbers, do not appear to be doing damage.

Thanks must be given to the expedition members who endured unpleasant physical conditions while counting. Bivvying on Hallival, on a wet, cold night with birds flying around ones head, is an experience not easily forgotten.

PAT THOMPSON



ZONATION OF SEASHORE (MEALISTA)

1. Barnacle Abundance Survey

The purpose of this survey was to discover the fluctuations in numbers of Barnacles on a vertical rock face at different tide times. For us weather prevented a very detailed and extensive survey, because high winds and rain made scrambling about on rocks a bit dangerous, so we were only able to make one decent count.

We chose a rock face NNW of camp, 2.70m high. Then we constructed a small quadrat of 25 square centimetres. A tape measure was draped over the rock face with the end reading 0 just touching the water of a rock pool, at the base of the face. The quadrat was placed along the tape at 10 cm intervals, and the number of Barnacles in the square were counted and the numbers recorded, including such details as the condition of the rock, etc.

The majority of Barnacles that we recorded were Acorn Barnacles (*Balanus Cerenalus*).

Phylum Arthropoda Class: Crustacea Order: Thoracia

It was noticed that the Barnacles congregated in greater numbers on shelves and in cracks. This was probably due to the fact that the sea-spray would lay in these particular places longer than on an exposed surface.

2. Rockpool Contents Survey

Again, the success of this project was greatly hindered by the deterioration of weather conditions.

The rockpool we finally chose was SSW of camp and must have been at least 3m in diameter, and at a constant depth of about 50-60 cms.

Firstly we recorded what we could see before we disturbed the pool with a net to see if any creatures were hiding in the seaweed.

DAVID BROOM AND TIMOTHY WILLIAMS

BARNACLE ABUNDANCE SURVEY

TABLE OF RESULTS

<u>Height</u>	<u>Conditions</u>	<u>No. of Barnacles</u>
2.70	Exposed	0
2.60	"	0
2.50	"	0
2.40	"	0
2.30	"	0
2.20	Sheltered cracks	13
2.10	Exposed	1
2.00	"	0
1.90	"	10
1.80	"	2
1.70	"	59
1.60	"	90
1.50	"	122
1.40	"	146*
1.30	"	180*
1.20	Sheltered	220
1.10	"	128
1.00	"	181
.90	Sheltered crack	157
.80	"	202
.70	Sheltered	172
.60	"	124
.50	"	105
.40	"	96
.30	"	85
.20	Sheltered shelf	120
.10	Sheltered	79
.00	Sheltered	72

*These squares were partially obscured by lichens.

ROCKPOOL CONTENTS SURVEY RESULTS –

LICHENS:

1. verruearla maura
2. Lichina pygaea

ANEMONES:

1. Actinia equina (Beadlet anemone)

BARNACLES:

1. Lepas anitfera (Goose Barnacle)
2. Balanus cernalus (Acorn Barnacle)

BROWN SEAWEED:

1. Alana esculenta
2. Pucus vesiculosus
3. Chorda filum
4. Leathesia difformia

LIMPETS:

1. Patella vulgata (Common Limpet)

MUSSELS:

1. Mytilua edulis (Cmmon Mussel)

PERIWINKLES:

1. Littorina littorea (Edible P)
2. Littorina sazatilis (Rough P)
3. Littorina neritoides (Small P)

GREEN SEAWEED:

1. Intermorpha intestinalis
2. Cladophora rupestris
3. Ulva lactuca

RED SEAWEED:

1. Grimthsia flosculosa

OTHERS:

1. Ligia oceanica (Sea Slater)
2. Amphithoe rubricata (Amphipod)
3. Bathyporeia peloglca (Amphipod)
4. Aurelia auria (Common Jellyfish)
5. Chelura terebana (very small creature-can only be seen with the aid of a 10x magnifying glass.)

PAST EXPEDITIONS OF THE S.H.S. tXPEDITION

EXPEDITION	YEAR	LEADER
Geometra	1962	John Abbott
Rhum	1963	John Abbott
Georaetra	1963	Tim Wilcocks
Mingulay	196*	Martin Child
South Ron*	196*	John Abbott
Raasay	196*	Richard Fountaine
Geometra	1964	James Emerson
Harris	1965	John Abbott
Jura	1965	Johnny Ker
Raasay	1965	Clifford Fountaine
Morvern	1965	Jim Hardy
Lewis	1966	Roger Dennien
Harris	1966	Alan Bateman
Jura	1966	Andrew Wilson
Colonsay	1966	Chris Dawson
Dingle	1966	John Houghton
Mingulay	1967	Kenneth Huxham
Rhum	1967	John Dobinson
Harris	1967	Andrew Wilson
Lewis	1967	John Abbott
Colonsay	1967	John Jackson
Vatersay	1968	Phil Renold
Lewis	1968	David Cullingford
South Rona	1968	Chris Hart
South Uist	1968	John Cullingford
Colonsay	1968	Alan Batenan
Shetlands	1969	Chris Dawson
South Uist	1969	John Cullingford
Lewis	1969	John Hutchison
Rhum	1969	Christ Hart
Colonsay	1969	Roger Trafford

EXPEDITION	YEAR	LEADER
South Uist	1970	Geoffrey David
Shet lands	1970	David Vigar
Fladday	1970	Mike Baker
Lewis	1970	Alan Howard
North Uist	1970	Phil Renold
Ulva	1970	Alan Fowler
South Rona	1971	Roger Weatherly
Rhum	1971	Phil Renold
Jura	1971	Charles Hooper
Colonsay	1971	Alan Howard
Mingulay	1971	Hugh Williams
Muckle Roe	1972	Ray Winter
South Uist	1972	Alan Fowler
Lewis	1972	Gavin Macpherson
Raasay	1972	Paul Caffery
North Uist	1972	Roger Weatherly
Harris	1973	Phil Renold
South Uist	1973	Alan Fowler
South Rona	1973	Jim Turner
Rhum	1973	Mark Rayne
Jura	1973	Dave Bradshaw
Colonsay	1973	Alan Howard
South Uist	1973	Jim Turner
Raasay	1974	Peter Carlisle
Harris	1974	John Hutchison
North Uist	1974	John Cullingford
Outer Isles	1974	Paul Caffery
Colonsay	1975	Phil Renold
Jura	1975	Lawrence Hall
South Uist	1975	Alan Evlson
Raasay	1975	Gavin Macpherson
Mingulay I	1975	Nick Deeley
Mingulay II	1975	Nick Deeley

EXPEDITION	YEAR	LEADER
Lewis	1976	Paul Caffery
Harris	1976	John Bromley
South Uist	1976	Mike Hayward
North Uist	1976	Alan Fowler
Rhum	1976	Roger Weatherly
Lewis Uig Sands	1977	Nick Deeley
Jura	1977	Dave Harding
Colonsay	1977	David Lennard-Jones
Lewis Mealista*	1977	Phil Renold
Knoydart	1977	Craig Roscoe
Loch Shiel	1977	Peter Liver
Raasay	1978	Roger Weatherly
North Uist	1978	Mike Hayward
South Rona	1978	Simon Atkinson
South Uist*	1978	Dave and Angie Crawford
Rhum	1978	Humphrey Southall
Knoydart*	1978	Jin Turner
Rhum	1979	Hike Hayward (Chris Venning)
Islay	1979	Roger Weatherly
Lewis Tananavay*	1979	Tony Ingleby
Loch Shiel*	1979	Alan Smith
Jura	1979	Stephen Paynter
Lewis Mealista	1979	Pete West

* denotes mixed expeditions