

COLONSAY BIRD REPORT

The birds seen were varied in spite of Colonsay's small size. The species went from Wren to Golden Eagle, from Tern to Wheatear.

On the cliffs we saw Fulmar, Kittiwakes, Shags and several species of gull, Also said to be breeding on the island are a pair of Choughs.

Around Tobar Fuar (our campsite) Curlews, Redshanks, Ringed Plovers, Dunlins and a few Turnstones fed on the sand at low tide. Common Terns and the occasional Little Tarn flew around at high water.

The birds of prey were spectacular; the Buzzards (of which there were a few) could be seen frequently. A Kestrel and a Merlin were seen occasionally. The best bird was The Golden Eagle. The Golden Eagles were seen by a few of us, we counted three Eagles, one of which was a juvenile. These were seen around Balnahard.

Other birds seen included: Herons, Mallard, Common Scoter, and Canada Goose on the coast. In the fields we saw Lapwing, Pheasant and Wood Pigeon, Hooded Crows, Skylarks, Swallows, Meadow and Rock Piptits in the air.

These are but a few and the actual list is given below.

Fulmar	Lapwing	CRAIG EASON
Shag	Ringed Plover	Kittiwake
Heron	Turnstone	Common Tern
Mallard	Snipe	Little Tern
Common Scoter	Curlew	Razor Bill
Canada Goose	Redshank	Wood Pigeon
Buzzard	Greenshank	Skylark
Golden Eagle	Dunlin	Swallow
Merlin	Arctic Skua	Hooded Crow
Kestrel	G.Black Blacked Gull	Rook
Pheasant	L. " " "	Jackdaw
Oyster Catcher	Herring Gull	Blue Tit
Blackbird	Hedge Sparrow	Coal Tit
Wheat Ear	Meadow Pipit	Wren
Stonechat	Rock Pipit	Linnets
Robin	Pied Wagtail	Chaffinch
Whitethroat	Grey Wagtail	Yellow Hammer
Goldcrest	Starling	House Sparrow
		Red Throated Diver.
		54 species in all.

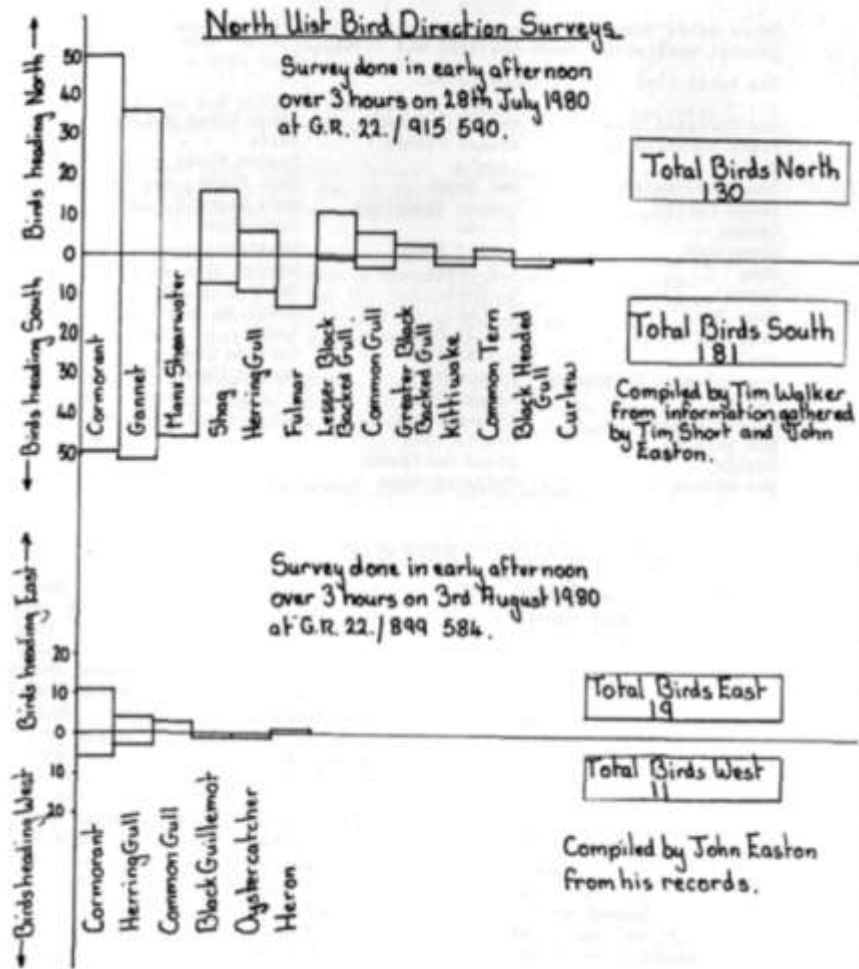
NORTH UIST BIRD REPORT

Site Report: Birds seen on or around the site were varied yet few and far between, except for the small birds such as Twites and Pipits. Eagles and Buzzards occurred fairly regularly yet there were no Falcons in the area. The sea loch had its fair share of gulls; mainly common. Herring and Black Backed, together with a few species of waders including the Common Sandpiper and Oyster Catcher. Divers flew over the camp regularly and Red throated and Black throated swan in the fresh water loch behind the cottage. There was a surprising lack of ducks, probably due to the position of the loch and to the season.

Other birds seen were mainly moorland/heathland birds because of the general habitat in which the site was situated. The total bird list is shown below.

Red Throated Diver	Oyster Catcher	Short Eared Owl
Black Throated Diver	Ringed Plover	Swift
Fulmar	Lapwing	Meadow Pipit
Manx Shearwater	Redhank	Rock Pipit
Storm Petrel	Common Sandpiper	Grey Wagtail
Gannet	Curlew	Stonechat
Cormorant	Arctic Skua	Wheatear
Shag	B.H. Gull	Wren
Heron	C. Gull	Twite
Mute Swan	H. Gull	Starling
Grey Lag Goose	L.B.B. Gull	Raven
Shelduck	G.B.B. Gull	Carrion Crow
Red Breasted Merganser	Kittiwake	Hooded Crow
Buzzard	Roseate Tern	
Golden Eagle	Common Tern	
Hen Harrier	Arctic Tern	
Merlin	Black Guillemot	
Red Grouse	Collared Dove	

SUPPLEMENT TO COLONSAY BIRD REPORT



Ostriches on Colonsay. However astounding the posing of this question may sound, one thing for certain is, yes, there are Ostriches on Colonsay. But before ornithologists go packing up their bags and heading for the dizzy heights of Carnan Eoin, no strange quirk of evolutionary development or catastrophe has occurred leaving a new species *Paleognathae Colonsaenius*. There is further more a perfectly simple explanation. Nothing more puzzling than the removal of birds from their native South Africa by the previous Laird.

Rumours are abundant and past S.H.S. Expeditions to Colonsay will doubtless have heard many of them. After some initial interest by members of this years expedition it was decided to explore and explode some of these myths and reveal the true facts behind these elusive creatures.

Luckily Colette was able to furnish us with some new facts. We had already learned from previous expeditions and visits that the Ostriches were to be found in the grounds of Colonsay House. Little else had been written or passed onto us apart from rumour. Thanks to Colette over hearing an islander telling some tourists about the Ostriches we gathered our first facts.

Originally the Laird had brought two young pairs onto Colonsay in the late '50s'. One of these had unfortunately died shortly after arriving on the island and was buried within the grounds, at a point near the entrance to the House Flats. A stone being used as a headstone and taking the form of a carved monk, clearly marked the spot. This stone was known locally as 'The Stone of Sloth' and is believed to have come from Riasg Buidhe the ruined village where it served as a marker to the well.

Armed with this new information we headed post haste to Colonsay House. Thanks to Davey one of the estates groundsmen we were directed to a quiet corner of the garden. Looking over the low wall we were able to see the grave. On top of the grave we could see a femur head believed to have been part of the leg of the actual bird.

The House Gardens are strictly private and surrounded by walls and bushes to afford as much privacy as possible. Consequently it is difficult to catch a glimpse of these tall but shy birds. However it is possible to hear them. Their cry at a distance so much resembles that of a lion that the Hottentots are said to have sometimes been deceived by them.

Looking around the edges of the garden, Paul, found a large down feather which he believed might have come from one of the Ostriches. The High Peak Animal Husbandry Institute has since identified it as being that of a hen.

Ostriches in the wild feed upon various shrubby plants and whilst they are allowed to feed themselves, great damage could occur to the exotic bushes within the garden. Consequently it has become the job of Mrs. Williams (Watty's Wife) the House Keeper to prepare their food.

The original intention had been to rear two breeding pairs and build up stock of birds to supply to private zoos. The remaining three birds were for some reason unable to breed, yet one or two infertile eggs were laid.

There is little chance of these large birds over running the Island as they are now reaching quite an old age.

(Anybody from previous expeditions who might have a photograph we would be very grateful to receive it for the files. Ed.)

SHIANT ISLES REPORT

Five of us were getting a lift on a fishing boat to the Shiant Isles with Murdo Morrison a builder/sheep-farmer/car mechanic from Rhenigidale.

We went to the Shiant Isles to bird-watch since the Shiant Isles were supposed to be an excellent bird reserve where many migrating birds rested.

Murdo was going to the Shiant Isles to round up some lambs to take them to market, and to take some lambs over to the Shiant Isles for winter grazing. When the fishing boat arrived, the deck was covered in sheep with their legs tied together and lying down.

Once we got beyond the -south of Loch Seaforth the sea got a lot rougher and we started to see some seabirds like Manx Shearwaters and Fulmars.

One shepherd couldn't come so I volunteered to go instead and they were glad of the help. My father also offered his help, so we were sheep farmers for three days.

Unfortunately we went at the wrong time of the year for birds, although there were many Shags, Cormorants and Fulmars. We just missed the Puffins. The most common birds were Cormorants and Shags and we could compare them to identify them. There were two families of Eider Ducks we also saw a flock of Starlings with young birds, so they must have nested there.

It was only on the evening of the first day that we had any time for any birdwatching - after that we were working hard to get the sheep sorted into those staying and those being taken to market. This was done by herding all the sheep from one Island to a pen at the end of the causeway between the two Islands, sorting them and letting the unwanted sheep go.

We made four sweeps in all of the two Islands ending up with 100 lambs. This was too many for the size of pen and one suffocated -we had fresh liver for breakfast the next morning.

The next morning we had to get up at 6 o'clock to get the sheep ready for the fishing boats to take the sheep and us back to Harris. Unfortunately the boats were late so there was no need to get up early. Getting the sheep over 100 metres of slippery rocks into a small rowing boat proved to be the hardest part of a very hard but thoroughly enjoyable three days. The return journey was calm and uneventful.

MARINE BIOLOGY REPORT. NORTH UIST

Armed with tape measures, rulers, pen, map, paper, compass etc. Jackie and I went for a walk along the coast with the intention of doing some marine biology. I had a load of ideas for possible projects and couldn't wait to find a decent beach. I had a beach in mind and so that was where I led Jackie, stopping to watch a deer dart below us and to look at various plants and birds and anything else remotely connected with Biology. When we arrived at my beach my brilliant timing and organisation stared at us both in the face and we started back, the tide was in and you just cannot do marine biology at high tide. There was nothing else to do except to sit down and have lunch and return back to camp.

On hearing how fantastic my Marine Biology was a group of four budding enthusiasts went with me on my next escapade. Sheer joy was on my face when to my relief the tide was out. Rocks were visible, so were seaweeds and limpets. With groans and moans my four willing and ready volunteers set to work, James and Richard were measuring lengths of seaweed on the shore while Alison and Mike K got soaked, measuring the widths and heights of any limpet they could get their hands onto. I sat on a rock watching the seals and the birds, with Judith and Nicky as company and calling instructions if needed.

Alison and Mike were asked 'Are patellae (limpets) in exposed situations steeper sided than those in sheltered situations ' According to Alison's results, which should follow this report, the answer is 'No' although it probably isn't that simple. The problem with the beach we found was, that apart from it being a very exposed beach in the first place, so there wouldn't be any obvious difference with the shape of any shell, there were very few limpets on it, and a larger sample would be needed before a true answer could be given.

Richard and James were asked 'Can optima for the growth of one or more species of seaweed be detected by relating length of specimen to position on the beach?'

ANGELA NEWTON

SURVEY ON SEAWEED LENGTH PROGRESSION DOWN A BEACH

METHOD

A suitably exposed beach was chosen with a variety of seaweeds present, those being Channelled Wrack, Bladder Wrack, and Knotted Wrack. The beach was then divided roughly into 5 sections: upper; upper-middle; middle; lower-middle; lower. A number of measurements was next made for each species in each section and a table of results was made Fig. 1.

As can be seen measurements were only made for the top three sections. Each piece of seaweed was measured (in cm) from its holdfast - its 'roots'.

A Histogram of the average length (each figure rounded up to the nearest whole number) of each piece of seaweed can be constructed. See Fig. 2.

CONCLUSION

The conclusions that can be drawn are that seaweed covered in water for more time than another piece of seaweed (even though it is of the same species) grows to a greater length because it doesn't spend so long out of the water, drying up.

RICHARD SKIPPER

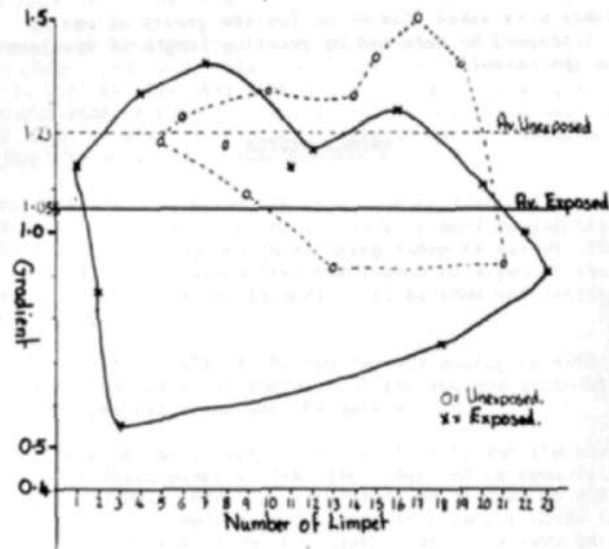
Survey to find out if exposure to the elements affects the gradient of Limpet shells By Alison Webster (Northlist)

	SIZE		POSITION ON BEACH			EXPOSURE		GRADIENT
	Height	Length	Upper	Middle	Lower	Exposed	Unexposed	
1	2.6	4.5	X			>		1.15
2	2.2	5.1		>		>		0.86
3	3.3	6.0		>	>	>		0.55
4	3.6	5.4			>	>		1.33
5	2.8	4.6			>		>	1.21
6	3.0	4.7			>		>	1.27
7	3.7	5.3		>		>		1.39
8	3.0	5.0		>			>	1.2
9	2.3	4.2		>			>	1.09
10	2.4	3.6		>			>	1.33
11	2.2	3.8		>		>		1.15
12	2.8	4.7		>		>		1.19
13	2.5	5.4		>			>	0.92
14	3.3	5.0		>			>	1.32
15	3.5	5.0		>		>		1.4
16	2.7	4.2		>		>		1.28
17	3.0	4.0		>			>	1.5
18	1.6	4.3		>	>	>		0.74
19	3.2	4.6		>	>		>	1.39
20	3.0	5.4		>	>	>		1.11
21	1.5	3.2		>	>	>		0.93
22	2.6	5.2		>	>	>		1.0
23	2.8	6.1		>	>	>		0.91

Average gradient of exposed limpets = 1.055

Average gradient of unexposed limpets = 1.23

Graph to show that unexposed limpets tend to have steeper shells than those which are exposed



KNOYDART EXPEDITION

BELT TRANSECT ACROSS THE ROCKY SHORE.

NR SAMADALAM. (734 065)

On a rocky shore there are various levels at which plants and animals can live. The section we surveyed varied four metres, fifty in vertical height from above high water mark to sea level and we covered twenty metres horizontally. Animals tend to be adapted to living in a specific zone according to their ability to resist or cope with the physical factors encountered there.

These include:-

1. Battering by the sea.
2. Changing of the medium around them - gills won't operate out of water.
3. Exposure to air - this leads to dehydration and also the need for camouflage.
4. Lack of food.
5. Temperature variation.
6. Changes in salt concentration mean that osmoregulation is essential, this is often achieved by a hard, impermeable cuticle.

The aim of the exercise was to see what; if any zonation of both plants and animals occurs and how each is adapted to their particular habitat.

Method

The shore studied was very irregular in cross-section so the distance from one quadrat to the next varied, according to Steve's discretion (he is an expert). This is why no attempt was made at drawing a cross-section.

We went out with the tide recording percentages abundance. When recording these results in graphical form we used the abundance scale:-

- A - Abundant 50+
- P - Frequent 26-50
- C - Common 11-25
- O - Occasional 3-10
- R - Rare 1-2

Results

See graphs.

Conclusion

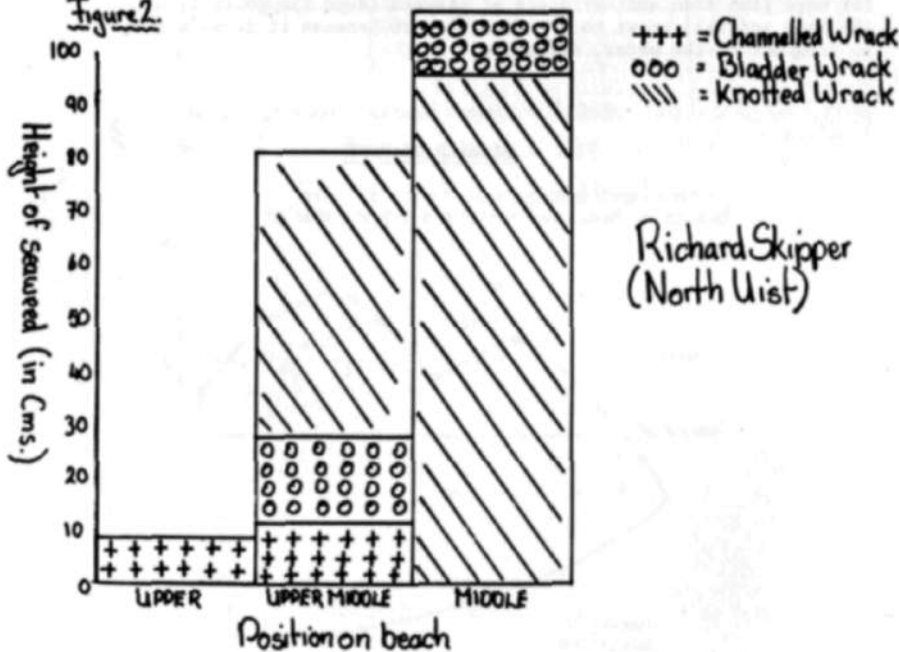
1. Lichens were only found above station D.
2. Only three specie* of seaweed were found, only two overlapped for a short distance.
3. Below the lichen (splash) zone and before the sandy lower zone that started at 1, limpets were always present.
4. The number of mollusc species increased lower down the beach

NORTH UIST
Survey on seaweed length progression down a beach.

Figure 1

RESULTS	Channelled Wrack		Bladder Wrack		Knotted Wrack	
	Cms.	Average	Cms.	Average	Cms.	Average
UPPER	10	8.6	None Present	/	None Present	/
	10					
	6					
UPPER MIDDLE	14	11.5	20	27.5	81	81
	10		31		84	
	10		31		62	
	12		28		97	
			93		76	
MIDDLE	None Present	/	99	102.3	100	95.75
			115		100	
					107	

Figure 2



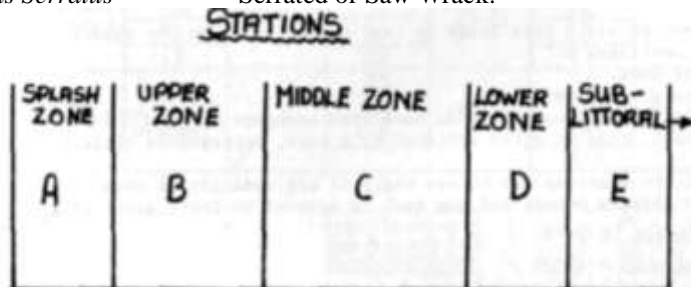
5. Unusually a crab was found on the upper shore.
6. Barnacles were abundant from the lichen to the sandy zone.
7. Hermit crabs and sea anemones were only found on the lower shore.
8. Sea potatoes were only found in the sandy zone.

How much do the organisms on each graph coincide with the zonation put forward by various books on rocky shores

Lichens: - We are always told that these exist only in the splash zone where they will be little affected by the sea water. Thus we can say that stations A-C were in the splash zone.

Seaweeds

Pelvetia Canaliculate - Channelled Wrack.
Fucus Vesiculosus - Bladder Wrack.
Fucus Serratus - Serrated or Saw Wrack.



Pelvetia is an upper shore seaweed and on our survey was found between D and E tending to suggest that the middle zone starts at E or F. It probably ends at H or I where vesiculosus stops growing and serratus starts.

3) Molluscs

<i>Littorina neritoides</i> - Small Periwinkle.	<i>Gibbula Cineraria</i> Grey Topshell or Silver Tommy
<i>Patella Vulgaris</i> - Common Limpet	
<i>Nucella Lapillus</i> - Dog Whelk.	
<i>Mytilius Edulio</i> - Mussel.	<i>Littorina Litoralis</i> - Flat Winkle.
<i>Littorina Littorea</i> - Edible Periwinkle.	
<i>Gibbula Umbilicalis</i> - Purple Topshell.	<i>Ensus Suiqua</i> - Razor Shell.

Littorea tends to be found on gentle sheltered slopes.

Gibbula is found in close association with *serratus*.

Nucella is found with Mussels.

Limpets are common from E to H suggesting this as the middle zone, therefore C to E as the upper- where only small Periwinkles are common. As expected in this middle zone mussels are found. They are also found in the lower zone between G and I. Dog whelks were found further up shore than expected, edible Periwinkles further down shore ending at I. Razors are found in the lower shore i.e. - from I downwards.

4 Crustacea, Coelenterates and Echinoderms

Carcindes Maenas - Green Shore Crab.
Balanus Balanoides - Acorn Barnacle.
Eupagurus Bernhardus - Hermit Crab.
Actinia Equina - Beadlet Sea Anemone.
Echinocardium Kordatum - Common Heart Urchin or Sea Potato.

Barnacles exist from E-H suggesting this is the upper and middle zone. They start to decrease at G where Anemones are present, as are hermit crabs. They don't exist however after I, suggesting this is the beginning of the lower zone. The crab at D was an unusual find. Therefore A-C is the splash zone, C-E/F is the upper. E/F to H/I is the middle and below H/I the lower see graph (1).

This zonation is chiefly caused by tides which in turn affect sea cover that will determine temperature, food and the ability to breathe. Organisms are adapted to living in the conditions in which they find themselves. Some of these adaptations will be mentioned below.

Seaweeds

If seaweeds stayed on the rock surfaces when they were covered by water they wouldn't get enough sunlight to photosynthesise efficiently so the brown seaweeds have adapted bladders to keep them afloat, therefore that much nearer the surface of the water thus obtaining the maximum amount of light possible, whilst still attached firmly to the sea bed.

Desiccation is the major problem when the seaweeds are left exposed by the tide. To resist this the cell walls of seaweeds are thickened so that water is lost from them first and no damage is done to the plant as a whole. Channelled Wrack retains its moisture in a groove along one side, a process that is helped by the fact that it has a small surface area that reduces the evaporation rate.

Buffeting is also a great problem, overcome to a certain extent by Bladder Wrack due to the bladders that it possesses one on each side of the midrib.

Seaweeds have no roots as such so have to absorb the mineral salts it needs from the surrounding water. In order to get enough this process has to take place over the whole plant.

Seaweeds have adapted their growth rates to their positions on the shore. Serrated Wrack, found low on the shore, will only grow if it is 11 hours in the wet and 1 in the dry.

Molluscs

Most Molluscs withdraw when the tide is out, in order to avoid desiccation, some however, like small Periwinkles and Flat Winkles and Flat Winkles move into the shade where it also tends to be damp. Those found further up shore, therefore exposed longest have thicker shells.

Limpets have a very special way of keeping themselves damp. They attach themselves firmly to the rock with a large sucker like foot. The Limpet then wears away a hollow into which it can fix exactly or if the rock is too hard to do this it adapts the edge of its shell to the hollow. When the tide is out the shell can then be pulled down tightly preventing the damp accumulated from oozing out.

Anchorage is the other main problem. Limpets tend to move about using their sucker like foot when they are under water. Mussels anchor themselves with a byssus which is a bundle of short threads. These threads, secreted by a special gland can resist a fairly powerful pull. Topshell and Winkles need to preserve their moisture so like Limpets anchor themselves for the time they are out of water. They do this by secreting mucus which when it dries out acts as glut.

Many people find it very difficult to identify the various Winkles because they are so variable in colour. They think that each different coloured shell they see is a different species however Dog Whelks can be three colours, according to their diet. If they are feeding on mussels they will be dark, if on barnacles - off white or yellow and if their diet is varied the shell will be striped.

Razor shells live in damp sand near low water they have a foot which it expands and contracts to draw itself downwards. When it does this it squirts water two feet high from its siphon, hence giving away its position to the possible intruder from which it was originally trying to escape. This syphon is situated at the end of a breathing tube. This reaches above the sand allowing the razor to suck water with oxygen and plankton in it, into one tube and out of the other. This is called filter feeding.

Crabs and Hermit Crabs (Crustacea)

The main concern of these animals is to protect themselves. Crabs carry their abdomen under their body which is protected with the head by the broad shield from which the large fighting claws protrude.

Hermit crabs are not true crabs. They have no tails and only the forepart of their bodies are armoured. It protects its long, soft abdomen by living in an abandoned shell; its claws alternately serving as a door and protruding for purposes of offence. It has five pairs of well developed walking legs but the last two are very small and the first pair are large pincers. The remaining two pairs enable it to walk about freely, carrying its shell with it.

As it grows it finds a larger shell and transfers itself to it. It has to adapt its body to fit the cork-screw shape of the shell.

Sea Anemones (Coelenterate)

These can form commensal associations with hermit crabs, giving protection for some of the crabs food. This protection is only given when the anemone is in water. Out of water it is just a featureless mass of green or red jelly but in water it has what appear to be petals.

However these are tentacles, armed with numerous stinging cells. When touched by a small animal they inject droplets of poison that will kill it then the tentacles bring it into the sac-like gut cavity where digestion occurs.

Barnacles (Crustacea)

Barnacles are attached with a cement like material. They are protected by several platelets of limy material. These close tightly when exposed to a falling tide but retain enough air and water to allow the inmate to survive. In hot weather ?them? so tightly that a rasping noise is produced.

Sea Potato (Echinoderm)

This is a form of urchin. It therefore has a shell which is made up of hundreds of tiny interlocking plates. These chalky plates carry little knobs where the spines are attached. It moves about on little water-filled tube feet which stick out through the radial grooves, which are pores in the shell. They feed mainly on decaying matter and algae, their mouth being on the underside of the body. It contains five sharp teeth worked by layers and muscles.

These animals are usually found a couple of inches deep in sand.

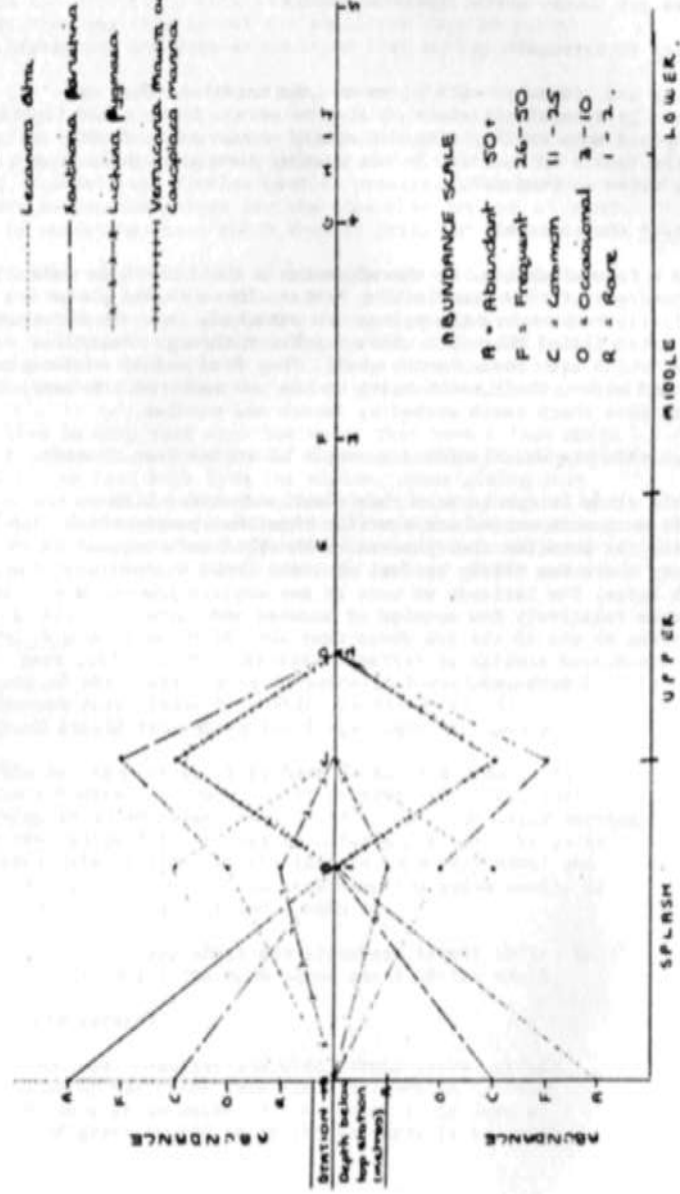
From this study it can be seen that plant and animal life on the sea shore is much more varied and specific than most people think. In our case, the zonation theory seems to be applicable suggesting that our rocky shore was fairly typical of those found elsewhere in the British Isles. The latitude we were at may explain however why there were relatively few species of seaweed and maybe it would be interesting to see if the sea shore near any of the other S.H.S. sites encountered similar or different species.

(Hint, Hint, next year's potential members).

CLASS: FUNGUS LICHENS

KEY GRAPH ONE

- Ochrolechia borealis
- - - Verrucaria muscosa
- Lecanora alba
- Lambdonia barbatula
- - - Lichina pygmaea
- +++++ Verrucaria maura and Cataglyphis maura

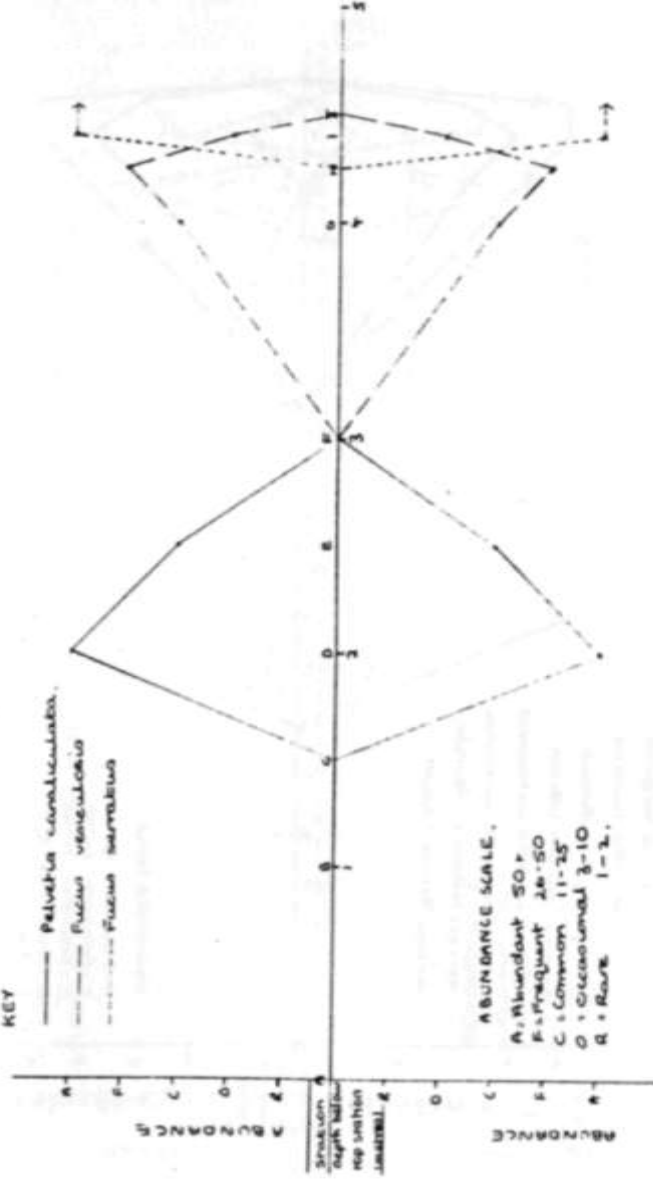


CLASS: PHAEOPHYLERE BROWN ALGAE (SEWEEDS)

GRAPH TWO

KEY

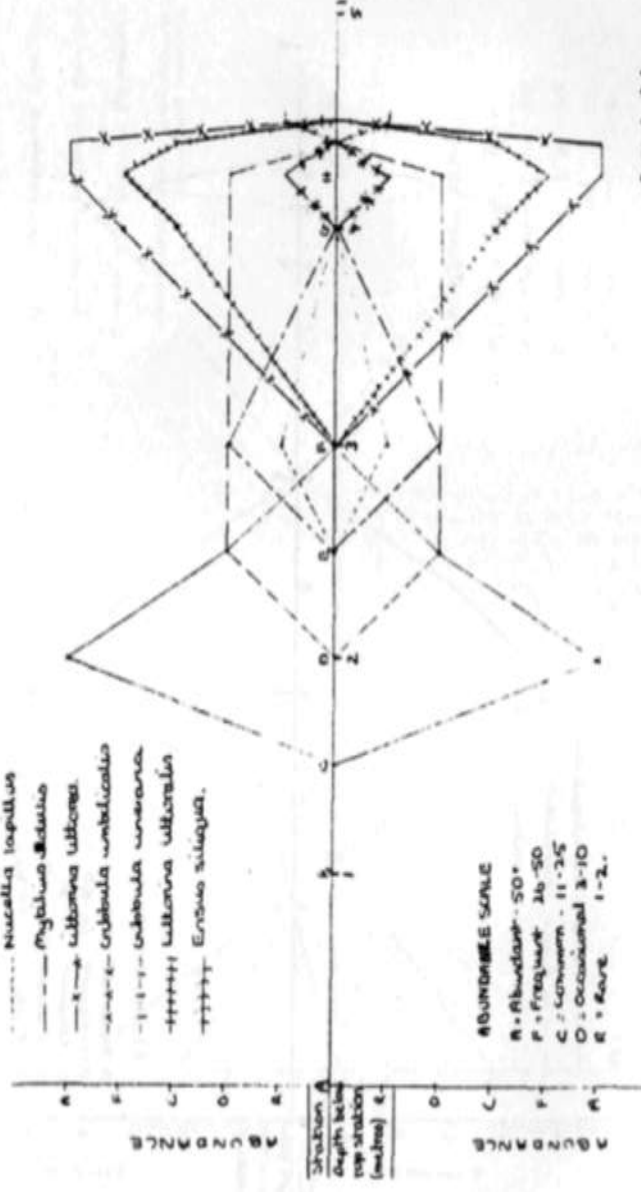
- Palveton canaliculatus
- - - Fucus vesiculosus
- Fucus spiralis



MOLLUSCA

GRAPH THREE

- KEY
- *Littorina katewiedae*
 - - - *Potamides vulgaris*
 - · · · · *Nucella lapillus*
 - · — *Mytilus edulis*
 - - - *Littorina littorea*
 - - - *Urosalpinx umbilicalis*
 - - - *Urosalpinx unguis*
 - +++++ *Littorina littoralis*
 - +++++ *Ensis siliqua*



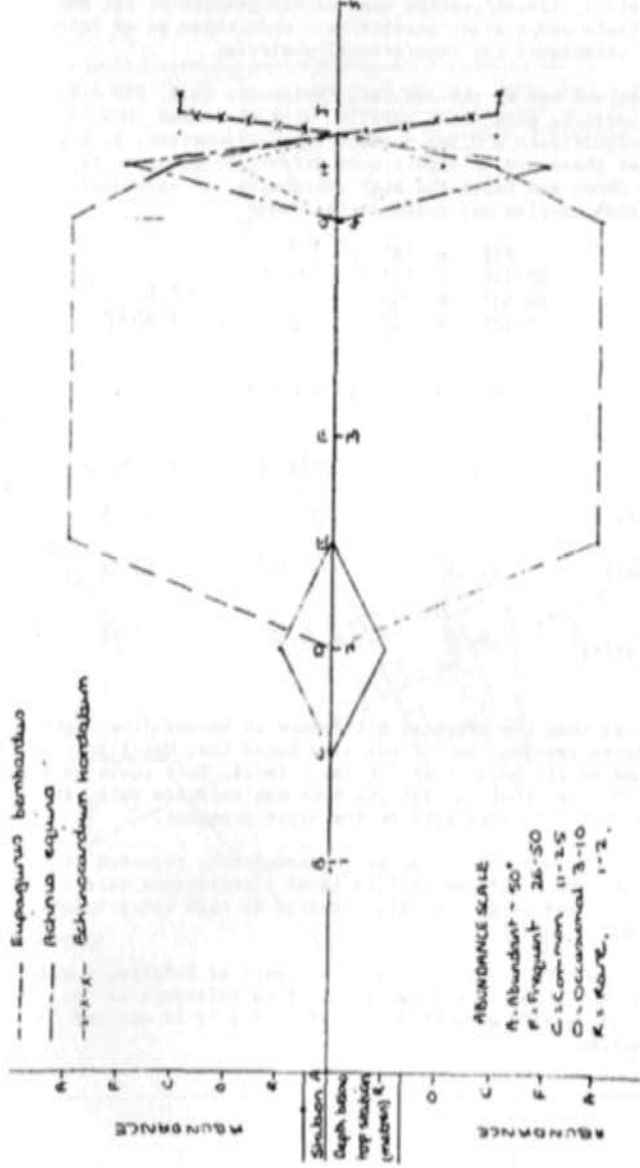
- ABUNDANCE SCALE
- A = Abundant - 50+
 - F = Frequent 26-50
 - C = Common 11-25
 - O = Occasional 3-10
 - E = Rare 1-2.

Scale 0-1

CESTACEA, COELENTERATES and ECHINODERMS

GRAPH FOUR

- KEY
- *Ceratonereis maris*
 - - - *Balanus balanoides*
 - - - *Eupagurus bembardus*
 - - - *Pilina spina*
 - - - *Schizocardium kordjabin*



- ABUNDANCE SCALE
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 - O = Occasional 3-10
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HARRIS LICHEN PROJECT

Several wet days were spent examining the Lichen communities of the coastal rocks around camp and one day during the 'Sheep (Excrement. Ed. Censor) Bivvy' to Maraig. Because of the small number of basic species involved, identification was quickly grasped by all and a series of simple comparative studies were undertaken as an introduction to sampling techniques for vegetational analysis.

The major project was at the Ard Caol Peninsular (G.R. 233 016) where two transects were taken parallel with the coast (NNW/SSE) at different heights with a 0.5m² quadrat every 1.5 metres. It was proposed that there was no significant difference between the lichen populations above and below the high water mark. In each quadrat the % cover of each species was noted as follows:-

75% = '5'
 50-75% = '4'
 20-50% = '3'
 5-20% = '2'
 5% = '1'

The lichens fall into three overall groups and their distribution can be summarised as follow:-

	FOLIOSE	CRUSTOSE	FRUTICOSE
Upper Transect	21.7%	52.2%	26.9%
Lower Transect	31.2%	56.5%	12.3%
% Index of Dissimilarity)	9.5%	4.3%	13.8%

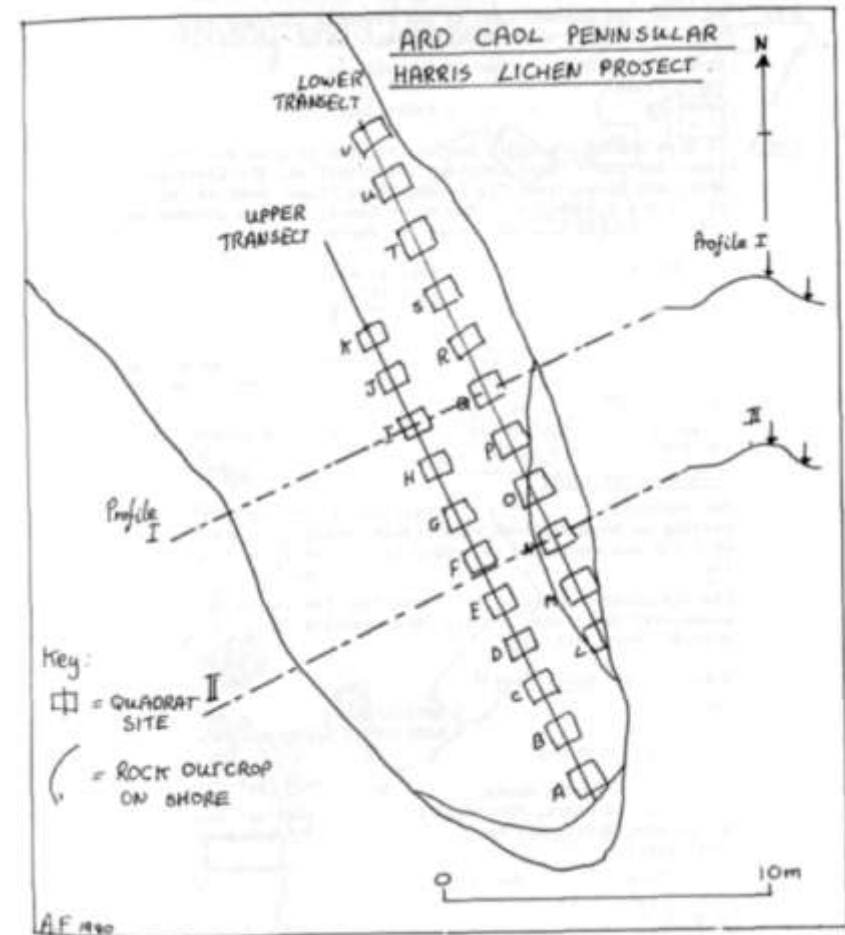
Dissimilarity)

It can be seen that the greatest difference is between the upper and lower Fruticose populations. It was also noted that Umbilicarea sp. was not found at all below the high water level. This could be seen to support the idea that the species does not tolerate salt. It was in fact comparatively rare even on the upper transect.

Although the null hypothesis can not be completely rejected it is clear that at even a 10% probability level a difference exists between the lichens which are daily covered by high tides and those which are not.

It had been hoped to incorporate a measurement of Relative Humidity in the study but these were shown to be of no relevance as the peninsular was usually enveloped by mist or fog if it was not actually raining.

Thanks are due to all those who laboured in foul weather, clutching soggy clip-boards or risked life and limb on the treacherous lower transect; notably Steve, Simon W, Andy W, Andy F, Jeremy Biggs and Chris Venning.



BUTTERFLY STUDY ON COLONSAY AND ORONSAY.

The following is a non-scientific study of butterfly varieties and frequencies of individuals rather than populations, together with any observations from the most abundant haunts on Colonsay and Oronsay. No attempt has been made to distinguish between males and females. The total numbers and varieties in each of the areas were taken on one day (not necessarily the same day) and are not an accumulation of totals over many days.

Area 1. An open long grassed lawn at the front of Colonsay House. Many different grasses few flowers.

- Green-Veined White - Over 20 individuals
- Small White " "
- Grayling 1 individual

Area 2 a) High walled vegetable garden, allowed to grow wild for at least two years. Many Thistles, Gooseberries, Blackberries, Apples and Pear Trees, Fig Trees, Grape vines. Nettles, Michelmas Daisies, Goatsbeard, Raspberry Canes, Various grasses and numerous exotic tropical trees and shrubs.

- Red Admirals 5 individuals
- Ringlet 1 individual
- Small White Over 20 individuals

* Small Tortoiseshell, at Whitsun 7 individuals of 1st generation adults seen and a colony of caterpillars, which were observed over a period of two weeks, feeding on nettles and seen to migrate from their original colony.

b) Buddleia and Rhododendron bushes outside the gardens to the North West and South.

Bushes to the South

Red Admirals 3 individuals vary territorial resting on Rhododendrons when clouds covered the sun. Then when the sun came out, returning to the Buddleia bushes to feed.

Peacock (rather small) 1 individual feeding on Buddleia, occasional confrontations with Red Admirals, spiralling upwards. Vary timid.

Bushes to the North West

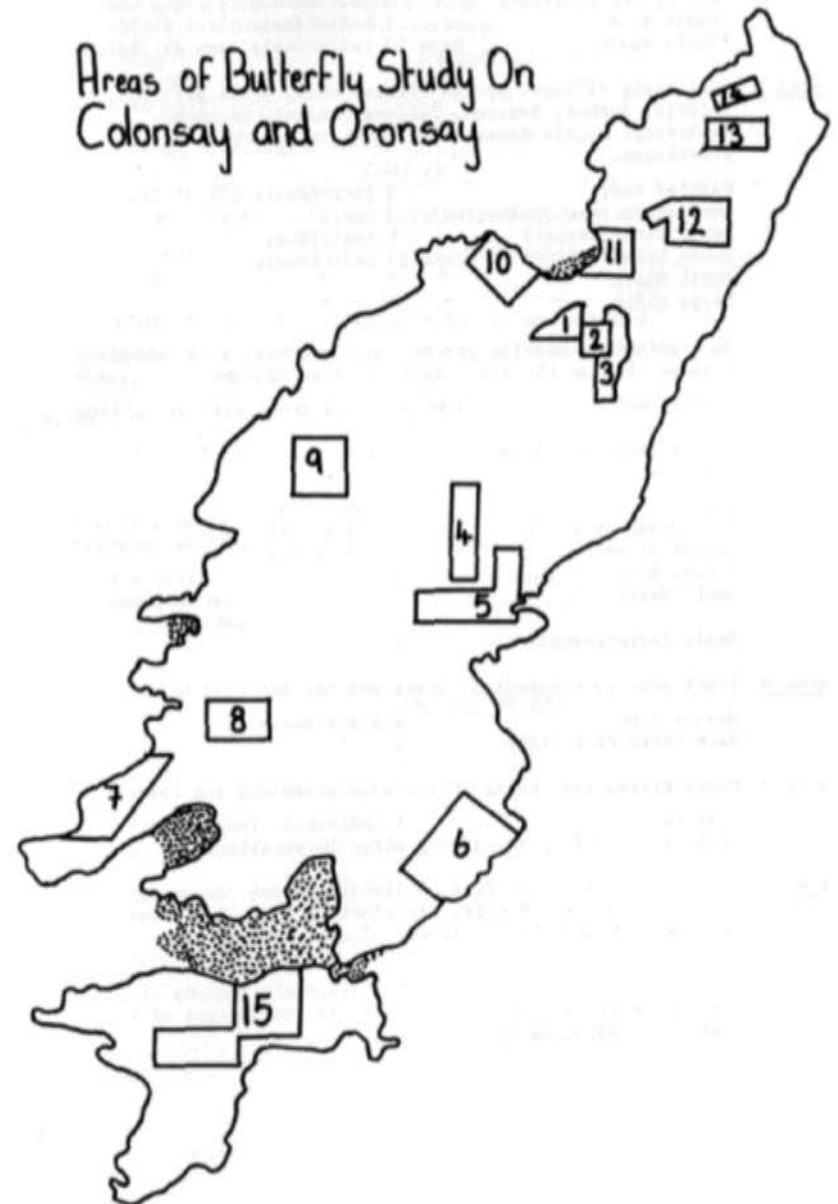
- Red Admirals 4 individuals
- Peacock 1 individual imperfect. Damaged upper right wing tip.

Area 3 Grounds of Colonsay House.

Edge of mixed woods. Rhododendron, rough grassland knapweed, meadow pea, clover, heather, rushes, bracken marshes and small lakes.

- Small White Over 20 individuals
- Green Veined White " "
- Large White 2 individuals
- Meadow Brown 1 individual (very old)
- Grayling " " " " " "
- Small Copper " " " " " "

Peacock " " " " (The imperfect specimen seen in area 2b North West)* 1 individual seen on track Basking in the sun at Whitsun.



Area 4 Path to Scal Asaig through col of Beinn Nan Gudairean. Mixed grasses and heather, meadow pea.

Dark Green Fritillary	3 individuals
Common Blue	2 individuals
*Small Heath	Over 10 individuals seen at Whitsun.

Area 5 Scal Asaig Village, around village shop, hotel and road. Thistle, Rushes, Bracken, Various Grasses, Knapweed, Buttercup, Purple loosestrife. Cultivated Crops Esp. Brassicaes.

Painted Lady	3 individuals (* of 1 st generation seen at Whitsun).
Small Tortoiseshell	1 individual
Green Veined White	Over 20 individuals
Small White	“.....”
Large White	“.....”

Area 6 Balerominmore, heavily grazed rough pasture, short mixed grasses. Meadow Flowers, Sea Pink, some Heather.

*Small Heath Over 20 individuals seen at Whitsun.

Area 7 Ardskenish, Sand dunes, Maram grass, Birdsfoot Trefoil, small Vetches.

Grayling	6 individuals
Dark Green Fririllary	7 individuals
Meadow Brown	2 individuals
Common Blue	1
Small Heath	1 (Over 20 seen at Whitsun)
Small Tortoiseshell	1 Pupa.

Area 8 Track over to Ardskenish. Grass and heather clad hillsides.

Meadow Brown	2 individuals
Dark Green Fritillary	1 “ .

Area 9 Upper Kilchatten. Extensively grazed grassland and heather.

Peacock 1 individual (newly hatched, observed extending and drying wings in sunshine).

Area 10 Uragaig, sheltered clifftop, hillside pasture. Extensive Knapweed, Thistle, Nettle, Birdsfoot trefoil. Birds-eye Speedwell. Meadow Pea, Primrose, Clover, Bracken and various grasses.

Peacock 5 individuals (Colony of lava seen on nettle at Whitsun and observed over period of two weeks. 17 individuals).

Area 11 Grassy pasture behind sand dunes of Kiloran Bay. Heavily grazed short grass and bracken, many flowers. Thistle, Birdsfoot trefoil, Eyebrite, Knapweed,

Grayling	7 individuals
Small Copper	5 “
Painted Lady	4 “
Meadow Brown	3 “
Dark Green Fritillary	1 “
Whites	Over 20

Area 12 North East slopes on Cernan Eoin. Bracken, Heather.

Small Copper	3 individuals
Grayling	3 “

Area 13 Balnahard Farm. Track lined with Nettle and Bracken.

Small White	7 individuals
*Small Tortoiseshell	12 seen at Whitsun.

Area 14 Cnoc Corr Sand Dunes.

*Red Admiral 1 individual (1st generation seen at Whitsun).

Area 15 Either side of road on Oronsay. Over to Priory, Heather, Thistles and Bracken with various grasses.

Meadow Brown	5 individuals
Grayling	2 individuals

PAUL E. CAFFERY

FOOD PROJECT

To begin with we decided to just build an oven, this was done by finding an oil drum and then making a hole in the end for the purpose of providing a door. The hole was made with some degree of difficulty, though the crowbar and pickaxe proved to be quite useful (incidentally the large frying pan makes a very good door). This then gave us the basis of our project. The oil drum was then cleaned, lined with slate, for added insulation and positioned over a large hole and covered with turf. Wood provided the source of fuel and greater heat was achieved by the use of a foot pump.

We were then ready to set about making whatever culinary delights appealed to those sure adventurous members of the expedition.

We only managed two such dishes (not for want of trying). The first was a cake, charcoaled around the edges and with that extra added ingredient of sand to give it more flavour. The second was baked pollack, caught on the end of Scalasaig Pier. This was slightly more successful and was devoured with great relish.

On reflection there was in fact a greater degree of success when the oven wasn't used at all. The doughnuts (believed to be an S.H.S. first) after initial setbacks finally rose sufficiently to be a viable proposition, and proved to be the highlight of the entire project. Though somewhat small they were voted a resounding success.

Apart from all else the project proved to be quite entertaining and just about everyone participated at one stage or another (if not in the Baking then certainly in the eating).

Thanks must go to those who put up with the failures without too much fuss - Macaroni cheese in flour sauce not to mention the cook for putting up with the slanderous comments.

COLETTE ARMITAGE

"THE HEBRIDES"

Photographs by Gus Wylie.
(Collins; £10)

Those who enjoyed the unsentimental account of island life in Derek Cooper's "Hebridean Connection" will find this book continues along very much the same lines, though in a much more visual sense, being a collection of 115 large format photographs. Gus Wylie spent a year travelling, observing, recording and photographing the Hebrides and this is the end product. Readers of "Hebridean Connection" may remember the illustrations by Wylie, and some of them are repeated here.

It is obvious the author has an affection for both the people and the places in the book, and also obvious that the Hebrideans accepted him and what he was trying to record. There are the landscapes -landscapes of peace, solitude and emptiness. The sunlight plays on Castle Bay's rippled sands that seem to stretch away for ever; the frozen seaweed sharply contrasts a still, calm loch; and the peat cutting landscape of Lewis comes alive as light and shadow create a beautiful form and texture.

But this is more a study of a way of life, and people and faces - young or old - feature prominently. Some are a study in expressions; of sadness, happiness, goodwill, even bewilderment. Others reflect the outdoors; the wrinkles and the weather beaten faces. "I don't mind rain but we've had this just about non-stop from last August" comments a farmer from Skye, and a crofter from Lewis allows himself a chuckle having battled against the elements to take his cow to pasture. Indoors, a young man assembles his bagpipes before a mass of Gary Glitter posters; weavers pause quizzically for the camera; and a man nods off whilst his wife prepares a "wee strupag" in the kitchen - a Hebridean nosh-up of scones, biscuits, cake and drink offered at all times of day.

Also represented are the fishermen and the boatbuilders, the schoolteachers and their schoolchildren, the Gaelic culture and the ceilidh. The past is brought to life with stone circles, crosses and churches. Present day religious beliefs are illustrated by the photographs of the Lewis Sabbath, the Gaelic Bibles and roadside Madonna, and the small wooden sign on Skye ("Remember The Sabbath Day to Keep it Holy.....") backed by a wide atmospheric seascape.

The different forms of travel are here too. The empty lounge of a Cal-Mac ferry is still and quiet. Day trippers to Rhum concentrate on keeping warm. There's a cold wind and a heavy sea, and it's chilly on deck. The last summer flight to Coll is serviced by a tractor and trailer, and Gus Wylie even takes us on board the air ambulance from Islay. Perhaps the Pilot sums up Hebridean travel best:

"I went on an ambulance flight once, and this huge farmer was brought in on a stretcher, heavily sedated because he had a thing about flying. Well at about two thousand feet he came round, and -reaching for the first thing at hand - grabbed me by the tie and pulled for all his might. Whilst I struggled to keep us airborne, about three hypodermics hit his backside at once".

This is a book to provoke images and bring back memories. To anyone who's caught island-fever, I'd recommend it.

ROGER BUTLER

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Name _____
Address _____

**NEWTON'S
LABORATORIES**



PAST EXPEDITIONS OF THE S.H.S.

EXPEDITION	YEAR	LEADER
Geometra	1962	John Abbott
Rhum	1963	John Abbott
Geometra	1963	Tim Wilcocks
Mingulay	1964	Martin Child
South Rona	1964	John Abbott
Raasay	1964	Richard Fountains
Geometra	1964	James Emerson
Harris	1965	John Abbott
Jura	1965	Johnny Ker
Raasay	1965	Clifford Fountains
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 Bateman
Shetlands	1969	Chris Dawson
South Uist	1969	John Cullingford
Lewis	1969	John Hutchison
Rhum	1969	Chris Hart
Colonsay	1969	Roger Trafford

EXPEDITION	YEAR	LEADER
South Uist	1970	Geoffrey David
Shetlands	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	Faul Caffrey
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 Evison
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 Neallista*	1977	Phil Renold
Knoydart	1977	Craig Roscoe
Loch Shiel	1977	Peter Liver
Esassay	1978	Roger Weatherly
North Uist 1978	Simon Atkinson	
South Hona	1978	Mike Hayward
South Uist*	1978	Dave and Angie Crawford
Rhum	1978	Humphrey Southall
Knoydart*	1978	Jim Turner
Rhum	1979	Mike Hayward (Chris Venning)
Islay	1979	Roger Weatherly
Lewis Tamasavay*	1979	Tony Ingleby
Loch Shiel*	1979	Alan Smith
Jura	1979	Stephen Faynter
Lewis Neallista	1979	Pete Weston
Colonsay	1980	John Sound
Mingulay	1980	Nick Deeley
North Uist*	1980	Steve Faynter
South Uist*	1980	Simon and Rose Atkinson
Harris	1980	Jonathan Orr
Knoydart*	1980	Ian Arrow

* Denotes mixed expedition.