



grampian speleological group NEWSLETTER



No. 170

July 2018

GSG Newsletter Editor

As of February 2018, Bob Sommerville has taken over as Newsletter editor. Work commitments, the need to supervise the editing of the Scottish Cave Database as well as some private projects mean that I no longer have the time necessary. I am sure you will all give Bob all the support he needs (as well as supplying him with news of club trips, new discoveries and items of general interest).

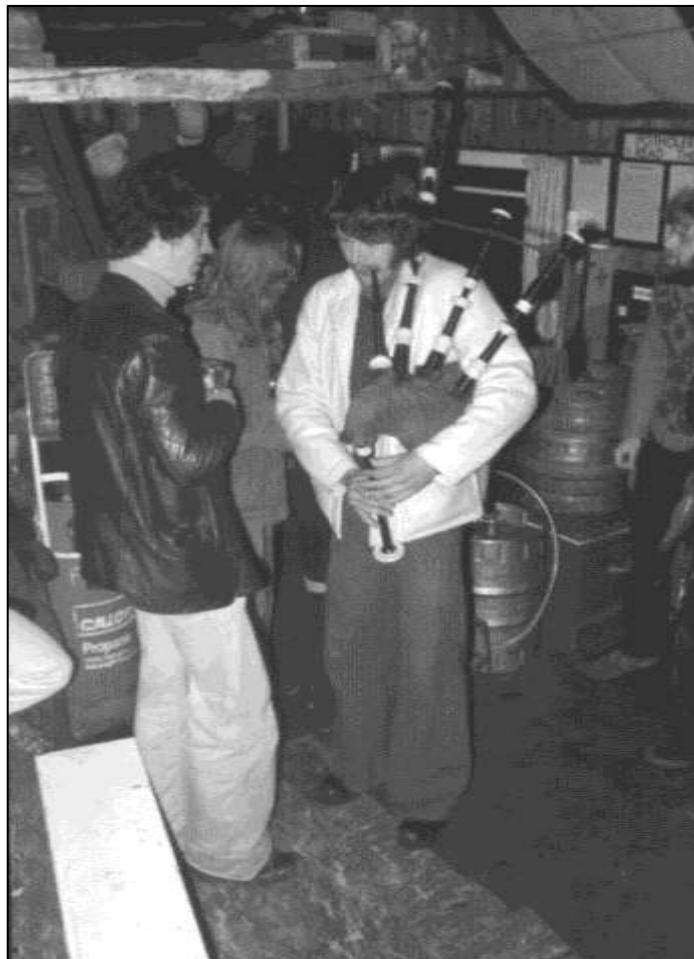
John Crae

A short note to say hello from me. I'll welcome comments suggestions and general banter as your new editor, so let me know what you want included and what is not so interesting. My email is bobhayne@gmail.com

Bob Sommerville

Vale: Brian Melville

Brian Melville (fondly known as 'Brian Brian' after his habit of repeating everything he said, *vide*: "Hi Brian". "Oh, Hello,Hello!") was never a member of the GSG but became a close friend of the club and involved himself in several of its functions. Brian, who worked at the National Museum of Scotland as a conservator, was a multi-talented individual, a fine musician on a variety of instruments, a top-class karate exponent and a fan of all things historic.



Due to his close friendship with GSG members, he took an interest in our activities, and became a star turn at several annual dinners, playing the bagpipes and generally mucking in with the festivities. Always excellent company, Brian would have made a great caver, if his attention had not been diverted to (many) other pursuits.

Latterly he had been struck down by Motor Neurone Disease, a pernicious affliction which quadrupled its effect on such an active individual. He never lost his sense of humour however, which was typical of the man, and he passed away peacefully on 14th June 2018. Another great guy lost to the club.

Alan Jeffreys

Bridie Pursey

Regular visitors to the hut will know Russell and Bridie Pursey our next door neighbours the other side of the river. They ran the Rare Breeds farm some years ago and had been regular participants in GSG Xmas meals and BBQs. We received the very sad news that Bridie had died on Monday March 12th. They had missed recent GSG meals in the hut because she'd been ill, none of us knew that it had been so serious.

Ivan Young

Brian playing the bagpipes in the old Knockan hut at New Year (date and photographer unknown)

GSG Treasurer

As of December 2017, Mike O'Driscoll resigned as Treasurer. His resignation was formally accepted at the GSG AGM in February and Ivan Young is stepping in as temporary Treasurer.

GSG Committee

70 years Young!

GSG stalwart, Ivan Young celebrated his 70th birthday recently. Ivan was presented with a cake and customary congratulations at the GSG AGM in March. Another birthday celebrated by the esteemed Mr J. Salvona would have also resulted in cake had the birthday boy in question not had a prior engagement! I'm sure all members will wish Ivan and Jim many happy returns.

Bob Sommerville



Ivan tackles the cake [DW].

Rana Entrance Slump

On a recent visit to Rana Hole, April 2018, Derek Pettiglio discovered that the slope above the entrance had collapsed sending debris onto and through the entrance gate. The following week the entrance was inspected by Julian Walford, Martin Hayes and John Crae. The collapse seems to have been confined to the area above the entrance with the ledge of limestone at the actual entrance remaining in place. The slump is however likely to continue and may undermine the

retaining wall and spoil heap. The wall and a part of the spoil heap should therefore be removed and made safe. It is suggested that once the slope has been reduced to a safe angle reinforcing mesh should be used to stabilise the surface and the exposed soil should be planted with heather and grass seed through the mesh.

Repair or replacement of one of the strap hinges securing the gate is also required.

John Crae



Julian inspecting the slump at the entrance to Rana [JC].

In other Rana news Derek Petteglio reports that the fixed rope at Black Rift has been replaced and is now in the hands of Bob Mehew for testing. Derek is continuing his excavation at Tibetsi for the moment as a solo effort in challenging conditions, although 4.5 meters has been added and given the rather alarming name of Appetite for Destruction! An inconvenient block is in need of some pyrotechnics to push further.

Bob Sommerville

Thailand Cave Rescue

The extensively covered cave rescue in Thailand of 12 boys and their football coach is better left to another time for a fuller description. Suffice to say the GSG had a member involved. Pete Dennis (current BCRC Chairman) was interviewed on the BBC 'Newsnight' program giving an account of the rescue effort I am sure all members will raise a cheer for all those involved in bringing the party to safety.

Cave rescue was also in the news in Scotland. The BBC reported a rescue by Cairngorm MR at Loch Duntelchaig. A 9-year-old boy was airlifted after being injured on a caving trip. The details are available on the teams Facebook page.

Bob Sommerville

New Cave in Durness

Iain Greig and Neal Menzies have discovered a new cave in the Durness at Ach a' Chorrain. Named as 'Uamh an Clachan Dhubh (Cave of the Little Black Rock). According to Ian's GSG Facebook post the cave has an impressive Golden Gnome level of 130 meters of passage! A full account is expected in the Bulletin.

Bob Sommerville

Recent Dales Trips

Keeping up the score for GSG activity in the Dales recently. Derek Petteglio has been busy, with members, Pete Dennis (with son Ieuan), George Antill, Jessie O'Shaughnessy and Roger Galloway. The following is a reminder of a phenomenon called rain earlier in the year.

Turbury Pot was a nice sporty little dangle well-watered for extra fun, back to Bernie's for tea then up the road, it was the cafe's last day but it is being refurbished and will open again soon.

The Club meet at Bull Pot (instead of New Rift Pot as originally intended) in February proved a trifle damp. Strong wind with driving sleet made the walk in a pleasure and it was great to get underground, all went well till the third pitch, for the most part it was fine until the last 8m or so which was desperate and the way on was a no go, too much water, communicating the situation to the people above was very difficult due to the deafening roar of the water and not being able to look up without my eye balls being pounded by water, managed to get Roger to turn back and followed him up once he had reached the top.

At the top of the pitch I explained to the others the situation saying that a trip to the bottom and back was very sporty but spending any time there was most unpleasant. Pete was with his No2 son Ieuan who was fairly new to SRT so the first two pitches were perfect for them to get some practice in.

Sunday and we headed off to Aqua Mole pot for some more dangling, the weather was vastly improved so that was good and the cave was very civilised apart from the last big pitch which was quite well watered, Jessie, George & I bottomed the cave and the others turned back at the top of the big pitch as time was getting on. Back to Inglesport for a snack then up the road.

In stark contrast, Robinson's Pot provided some much-needed shelter from the ravages of the Sahara-like heat we have been experiencing throughout July. A permit obtained by various 'in the know' channels was not to be missed. Although Pete Dennis missed out due to some cave rescue or other..

Bob Sommerville & Derek Pettiglio

Scottish Cave Database

The Scottish Cave Database is now up and running on the BCA server. This can be accessed via the following link:

<http://registry.gsg.org.uk/sr/>

No login or password are required. Thanks go to Matt Voysey for all his work on setting up the software. No apologies are made for the disordered nature of individual entries which are still in the process of being proof-read and checked for accuracy.

For the moment, the editing team is being limited but any comments and suggested corrections should be sent either direct to me or via the link in the database.

John Crae

UNCABAC Dig

Stu Lindsey continues his dig at UNCABAC. The latest word in the pub is the length is approaching 190 meters, more from the man himself

MENDIP MIGRATION was quite successful with a hardcore of 5 from south of the border being accompanied on 4 of the 8 visits by our Inverness compatriot. As a successful sortie it was about 60/40 positive. We gained from various points another 25 metres of passage and built up a picture of the correct sequence of attacks at various sites. This is to alleviate the need to re dig or move spoil at later dates. Next visits for digging activities are July and October although it is possible an August/ September one may be slotted in as a couple of peeps determine availability.

The entrance has been blocked off with a combination of rocks and bags to avoid river debris being washed in, although the canal and widening of the bowl at the entrance should also help.

Stu Lindsey

3D Caving

Whilst reading a geology newsletter sent to my wife, I came across a link to a new page on the BGS web site at <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/GeoBritainMap/home.html> . This page providing a map based set of geological information on various locations across the UK. Naturally I tested it and found 3 locations marked north of Ullapool. One linked to the NW Highlands Geo park web site, another to the map and book on Exploring the Landscape of Assynt whilst the third is a link to the Assynt Culmination 3D geological model at <http://www.bgs.ac.uk/research/ukgeology/scotland/assyntCulmination.html> .

Those of you with long memories like Ivan Young, will recall I had reported this facility back in April 2013 newsletter. You have to download a pdf file and then start playing with the model. Whilst somewhat crude in display, if you turn off all bar blocks 1 and 5 and turn the display to the correct orientation, you get a depth profile of the geology up the ANUS valley. I had not appreciated how much the beds undulate in this area. I must admit I am having trouble in getting a similar view into the Traligill Valley. The web page states that the 3D model is based on the sections provided in the 2007 Assynt special geological map.

Bob Mehew

Armchair Caving

Following an email inquiry to the committee by Gravitricity, a rather novel request was made by the company researching power generation from disused mines. The idea is that gravity can be used to generate electric power. The potential energy of falling objects has been used for centuries i.e. waterwheels and turbines.

However, the new approach uses the principle of a falling weigh(s) in a large shaft, what better than a disused coal mine. The GSG was asked to help out with access or knowledge of nearby disused mines with vertical shafts ideally over 300 meters!

The Gravitricity website is worth a look (text in italics from the site)

Essentially, the Gravitricity system is a huge 'clock weight'. A cylindrical weight of up to 3000 tonnes is suspended in a deep shaft by a number of synthetic ropes each of which is engaged with a winch capable of lifting its share of the weight. Electrical power is then absorbed or generated by raising or lowering the weight. The weight is guided by a system of tensioned guide wires (patents applied for) to prevent it from swinging and damaging the shaft. The winch system can be accurately controlled through the electrical drives to keep the weight stable in the hole

The key requirement is a deep hole in the ground; it can be a disused mineshaft brought back into use, or a purpose-sunk shaft. Shaft depths can be from 150m for new shafts down to 1500m for existing mines.

<https://www.gravitricity.com/>

Also, from the net, it seems Germany has salt caves.

Caves aren't just homes to giant bat colonies — thanks to modern technology, they can also house batteries. And not just any batteries — the world's largest battery. A few weeks ago, German utility EWE unveiled its plans to build an energy storage system in an old salt mine that could ultimately become the biggest battery on Earth.

<https://www.digitaltrends.com/cool-tech/germany-biggest-battery-salt-cave/>

Bob Sommerville

3D Printing the Bear Skull found in Antler Chamber, Uamh an Claonaite



3D printed tooth and Bear skull [BM]

Due to one of those curious coincidences which might otherwise be described as fate, it has come to my attention that nothing has been said about this topic since 2013 (Newsletter No 154 page 9). As was indicated in that short item, Tam Barton did volunteer to do some work on the 3D stl file of the skull and produced a new version which bot removed some artefacts of the scanning process and healed various errors. There was also a small bonus in that the returned file was only 120MB in size compared to the original 600MB.

Julian Walford then picked up the baton and took the file to his 'Shed' group who had some expertise in 3D printing. The major output from that work indicated that one needed a very large printer if one was to print a full size skull at around

40 by 25 by 15 cm. Another major point learnt was that printing in 3D required one to arrange a suitable 'start' point so the whole print could sit on the printer (imagine trying to start 3D printing a cone using the apex / point rather than the circular base). Whilst the printer available to Julian was not large enough to print the whole skull, he was able to print one small part, namely the canine tooth.

And there the topic stayed for a long while, with casual enquiries coming to naught. Until suddenly last November Tommy Moore posted a thread on ukCaving.com about 3D printing replacement stalagmites to enable in cave repairs to be done. Taking the opportunity, I wrote to him enquiring about his resources. It transpired that he was for a brief period working for a 3D printing company and thus had access to a wide range of 3D printers and facilities. So, I sent him a copy of the file and asked what might be the cost. Regrettably the response was that a full size 3D print would cost well over £1000 though reduced sized prints would be much cheaper due to using smaller and thus cheaper to run printers. But in doing this Tommy was able to supply me with an even smaller 12MB stl file. Windows 10 now comes with a built in stl file viewer otherwise one could download MeshLab, a free software program which allows one to view and work on stl files.

And then as memories of Xmas faded, quite unexpectedly in February the post man delivered a parcel to me. In it was a 3D print as can be seen in the photograph. So that's the current position. If someone fancies organising a miniature 3D print for themselves, then do contact me. In the meantime, I will continue keeping my eyes and ears open to see if another opportunity to get a bigger 3D print might arise.

Bob Mehew

Drying Room Efficiency

Please note that the cost of running the drying room overnight can be reduced by using the drying room for damp items only (excluding overalls). Excess water can be removed from wet items by using the spin drier before they are placed in the drying room. For those unfamiliar with it, the spin drier is the small barrel-like machine by the back door. Please place a basin below the lower outlet to collect the removed water. Relatively clean wet overalls can be hung up to dry in the drying room lobby and should be almost dry by morning. Remove dry items from the drying room as soon as possible and do not leave the dehumidifier running when it is not required.

John Crae

Hut Fire Safety

The gas fire in the front bunkroom has been disconnected and is awaiting replacement. The replacement unit has been supplied but the CORGI registered fitter is not available until 12 December. The unit will be fitted as soon as possible. Visitors are asked to check the alarms when they start their stay and follow the instruction notices.

Pete Dowswell

The gas fire has now been fitted but there remain some teething troubles regarding lighting the fire in cold weather.

John Crae

Hidden Earth

To date (July) no definite location has been announced for this year's Hidden Earth. The website advises keeping an eye on their Facebook page for any updates <https://www.facebook.com/hiddenearth>

LATEST NEWS: Hidden Earth is once again at Churchill Academy on Mendip 21-23rd September

Trips & Expeditions

Meghalaya 2018

Five GSG members, Simon Brooks, Thomas Arbenz, Mark Tringham, Dave "Cookie" Cook, and Andy Morgan went to Meghalaya this year. The first two weeks of expedition were spent on the South Shnongrim Ridge in the Jaaintia Hills, some 6 hours' drive from Shillong. Three main caves were pushed in the area: Krem Sakwa, Krem Rupa, and Krem Dieng Sim. A particular highlight for me was being the first to enter some beautifully decorated passage in Krem Rupa. It wasn't all good stuff, as we surveyed some flat out squalid muddy passage that wouldn't have been out of place in Scotland! The second highlight was being shown a 70-metre-high waterfall by our guide, which I expect very few people have seen. Sadly, it wasn't in limestone and there were no obvious caves around.



Meghalaya expedition members [AM]

The second two weeks were spent in the East Khasi Hills. The main cave being pushed in this area was Krem Puri, a complex maze cave formed in sandstone. We knew that there was the potential for Krem Puri to become the longest sandstone cave in the world. As some of us were only on the expedition for 3 weeks, and were heading home in a week, there was a big push to try and get the record before we left. Several teams went in each day to "harvested the metres", with some team surveying more than 1km per day. We beat the record after a few days and celebrated with a large chocolate cake. By the end of the expedition the surveyed length of Krem Puri was 24.6km and the second longest cave in India, with 12.2km of that length added during this year's expedition. The total length of passage surveyed in Meghalaya this year was 22.8km.

Andy Morgan

Imo Furlong' family trip to Thailand.

Good fun and caving was had by all. A full report to follow in the Bulletin



Family trip to Thailand [IF]

From 28th Dec 2017 to 14th January 2018 a team of 15 families (52 people) revisited the Ao Thalane area of Krabi. A further 75 previously unrecorded entrances were found in two karst clusters. The Khao Kayam and Khao Nong Chang Tai. In Khao Kayam, 1200m more cave was explored and mapped on the south and west side and 580m on the northern and upper slopes, bringing the total surveyed length in this massive to 3789m. A route to bottom the 100m deep doline at 350m elevation was navigated from the bottom through dense jungle and steep rocky cliffs, although this doline is still yet to be fully prospected. In Khao Nong Chang Tai 1000m was added bringing the total surveyed passage to 1400m in this area. Total survey for the 2018 expedition was in the region of 2780m.

Imogen Furlong

BREAKING NEWS – ‘COLD OFF THE PRESS’

Early last year, Gina Moseley of BCRA, based at Innsbruck University, identified some curious calcite formations in Mendip caves which revealed that caves existing under glacial conditions had, when their internal waters froze, formed crystal growths on top of the resulting ice. When the glaciers retreated and interiors of caves warmed up, this ice melted, leaving curious ‘popcorn’-type formations littering the floors of passages. These deposits, quite new to science, were termed cryogenic cave calcite, and are valuable in tracing regions of perma-frost during the last glacial period and previously only known from a few sites in central Europe.

Gina was eager to learn whether such deposits were to be found in other parts of the UK and launched a competition in conjunction with the BCA. Handsome rewards were offered: winners would be offered either 200 metres of rope or £240 worth of caving equipment.

Thanks to work by Julian Walford, investigations have revealed probable deposits near 2B’s Chamber, in Rana Hole which won the GSG the prize for Scotland. Gina is very encouraged to find such a wide geographical spread of these phenomena and we extend our congratulations to Julian for taking the lead in this ‘treasure hunt’. The prize will be used to purchase caving equipment as well as rope.

Hut Maintenance

Construction of new ventilated wood store (in progress).

Floor cupboards and workbench to be fitted in Tool Shed extension (Units now in place but still to be secured). The wall cupboards have been fitted to the back wall of the shed and elsewhere. Shelving is to be fitted between the cupboards.

Replacement of door and window at drying room lobby (by joinery contractor). Replacing the bargeboard/soffit at the edge of the roof above has also been suggested.

Replacement of door to conservatory (by joinery contractor).

Box shelving to be fitted in drying room lobby (Constructed by Stuart Lindsey).

Replacement of kitchen cupboards and repositioning/redesign of shelving.

Re-grading of driveway. Concrete surface suggested with cross drain at upper gateway.

Peter Dowswell is looking for local tradesmen to do the work not suitable for DIY.

Leaking roof at gutter above door from kitchen to conservatory, possibly due to blocked gutter to be investigated in dry conditions. Clear regularly.

AGM

This year's GSG AGM took place on Saturday 17th February. As usual the minutes are available to members only on the GSG website

Amongst other issues discussed was the nomination of Office bearers and volunteer/s are needed to take the post of Treasurer

John Crae

Beer etc

In the light of recent Scottish Executive's move to increase the cost of purchasing alcohol in shops etc., members are reminded that there are still bottles of Great Northern Brainwrecker to be purchased at competitive prices. Apply to Goon for fresh supplies.

Goon has recently purchase another copy of Robertson's 'Limestones of Scotland' (Geol.Survey, 1949), an ex-BGS library copy in good condition at £10. Anyone interested in buying this most useful reference book, please contact Goon.

GSG Annual Dinner

This year's orgy of food and drink is being held Applecross, some caving may be involved. The menu below and accommodation booking form should be returned asap to Ivan with your choices and of course your cash, cheques or IOUs! Thanks to Andy Peggie for organising this year's bash.

GSG Publications

'Caves of Assynt' still delayed.

Copies of Jim Salvona's "A Guide to the Awe-Inspiring Raasay Fissures" are available from Raasay Post Office, or Goon may be persuaded to print a copy on request.

Publications (prices to non-members in brackets)

Decades in the Dark	£20.00 + £2.00 p&p	De Profundis	£3.00 + £0.58 p&p
Caves of Skye	£6.00 (£8.50)		
Jim's Festschrift - A Wanderer in Dens and Caves of the Earth	£5.00 + £0.75 p&p	Buddy Reading (Caving in Couplets)*	£2.00 (£2.50)
Caves of Applecross and Kishorn	£4.00 (£6.00)	NAMHO Field Booklets	£2.50 (£4.00) set
Mines in Scotland	£4.00 (£5.00)		
GSG Ties		(Old)	£5.00
		(2012 Vintage)	£10.00

* out of print – photocopies available.

AND – Cave Pearls of Meghalaya – Volume 1	£26.00 or £30.00 with UK postage.
Cave Pearls of Meghalaya – Volume 2	£35.00 or £39.00 with UK postage.

Alan L. Jeffreys, Recorder

Sutherland Hut Logs

The latest transcription volume of the Elphin Hut Logs (Vol.13) has been published, covering the year Jan-Dec 2016. These publications allow infrequent visitors to Assynt to be informed of field work there. Copies are available from Goon at £1.50 plus post (all merely to cover production costs).

Alan Jeffreys

GSG Annual Dinner
Booking Form

Applecross

27th Oct 2018

A) List the names of those attending the dinner

1 _____	2 _____
3 _____	4 _____

B) Select each course plus options for each person

	1	2	3	4
Starter				
1 Vegetable soup. (V)-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Hot and cold Applecross smoked salmon and salad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Homemade highland venison, pork and chicken liver pate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(All the above served with homemade bread.)				
Main Courses				
1 Venison casserole with mashed potatoes and vegetables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Roast cod served with rosti potato seasonal - Vegetables and veloué sauce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Roast Provençal vegetable linguini with crumbled goats cheese (V)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Chicken fillet stuffed with Stornoway black pudding and served with a creamy gravy, new potatoes and seasonal vegetables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Desserts				
1 Baillies chocolate mousse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Lemon tart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Pavlova with fruits of the Forrest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total for Annual Dinners @ £25.00 x = £

C) Write your cheque for B)

Make your cheque payable to "GSG" and send it with this form to:-

Ivan Young, 45 Maitland Road, Kirkliston, West Lothian, EH29 9AP

Alternatively email your booking to ivany.07@gsgroup.demon.co.uk and pay electronically.

To pay by Internet banking you need the following information:-

Sort code:- 80-02-19, Account Number:- 00246373 (Identify your payin for GSG treasurer.)

D) Tick this box if you want your cheque cashed immediately

Cheques will otherwise not be paid into the GSG account until the middle of October

Help minimise hassle during the dinner weekend and send a cheque for the full amount now.

E) Book your Accommodation at Hartfield House.

Do not use the internet booking site which is closed as GSG have exclusive use 26th and 27th October.

Best to call Henry Robertson direct on 01520 744333

BY e mail – Contact - henry@venturetrust.org.uk or info@hartfieldhouse.org.uk

Hartfield House only has 2 double rooms, 2 singles and 4 twins. So who gets these rooms will be first come first served. Everything else is either twin bunk rooms in the bunkhouse or dorm rooms of 4, 5 or 6. As the dinner is off season a special rate of £18 per person per night is offered.

Hartfield House, Hartfield Road, Applecross IV54 8ND

If you book particular rooms please indicate below so we know who to expect in the Hostel.

Other accommodation may be available in the village or the camp site but these have not been investigated.

Double room	Single room	Twin Room	Bunkhouse	Dorm room
Other.				

Elphin Caving Centre

Confirmed Taigh nam Famh Bookings (contact Hut Warden Pete Dowswell or Deputy Hut Warden Imogen Furlong for latest information)

Hut fees are £8 per night for non-members and £4 for GSG and BEC members, students, unemployed, children and OAPs. Camping is permitted at any time but the reduced rate of £4 applies only when the hut is full. Day fees are £2 for members and £4 for non-members.

If you want to stay in the hut, please contact Imogen Furlong who is responsible for hut bookings (Tel. Home:- 07532 388474. E-mail:- imo.furlong@gmail.com) – to check if there will be space. For any other hut related issues contact the Hut Warden – Pete Dowswell. (Tel. Home:- 01463 229250, e-mail:- hutbookings@gsg.org.uk).

REMINDERS

- 1. Inform the membership secretary (Ivan Young) of any changes of address or contact details, check what appears on the GSG web server and send any corrections to Ivan.**
 - 2. Send news items to Bob Sommerville for the Newsletter, longer items to Alan Jeffreys for the Bulletin. If in doubt send to both.**
 - 3. Borrowed kit should be returned clean and dry.to Derek Pettiglio If possible record the length of time lamps are in use (do not recharge lamps before returning them). Do not allow lamps to remain in wet bags.**
 - 4. Consider standing for election to the GSG Committee at the AGM, attending committee meetings as an ordinary member or shadowing a committee post (acting as deputy committee member and becoming familiar with the duties of one or more of the committee posts).**
 - 5. Digital versions of all Bulletins, Newsletters and other official communications can be downloaded from the GSG website as alternative to paper (saving the GSG money on both postage and publication costs).**
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Photo credits: - Dave Warren, John Crae, Bob Mehew, Andrew Morgan, Imogen Furlong.