

Guide to Good Practice for Participants

Good practice for: the furtherance of the aims of the Russell Society; the environment: plants, animals, mine sites and mineral exposures; relationships with land owners and site management; health and safety of all.

Good Practice for Collecting

Follow the Countryside Code and observe by-laws and regulations imposed by e.g. The National Trust, National Park Authorities etc. For sites designated SSSI collecting is normally prohibited unless you have permission, in writing, from both Natural England and the land owner (other authorities apply in Scotland, Wales (Natural Resources Wales) and Northern Ireland). For sites covered by the H&S at Work Act the manager has a legal responsibility for the safety of visitors, you will need personal protective equipment (PPE) (hard hat, safety footwear, high-viz top and trousers, eye protection, gloves) and to follow instructions explained on arrival. Be aware of the affect your collecting may have on the environment; stock, wildlife and plants. If holes are dug ensure they are filled before departure. Ensure digging does not affect the stability of track ways, walls or other structures. Do not leave rocks or other excavated material on fields or track ways where they may cause injury to people or animals. Do not dispose of material from one site onto another as this could cause confusion for future study. Do not remove excessive quantities of material from a site or cause damage to important geological exposures or mineral veins; the preservation of such sites for the future is vitally important. Material on a site is the property of the land or mineral rights owner, to remove material without permission could be regarded as theft. Always obtain permission to undertake any collecting. Avoid buying specimens you suspect have been obtained without permissions, especially from sensitive areas. Ensure that all finds are properly recorded; date of collection and location are essential; grid reference, name of species, a sketch map of the site; associated species are very useful but sometimes it takes time to carry out sufficient research to find this information. Finds of significant interest should be written up in a scientific journal, having obtained the land owner's agreement, but ensure the necessary acknowledgements for access, etc., are given. Ensure there is a purpose for collecting material, often scientific, educational, or historical. Consider giving specimens of note to a national or local museum.

What you can do to help your trip coordinator/organiser

Your Field Trip Coordinator (FTC) has overall responsibility for liaising with all the parties involved and ensuring the group understand their responsibilities for their own safety, the risk mitigation measures to be followed and the requirements/conditions of landowners etc. You must follow any instructions given. Your FTC has already volunteered to plan the visit; volunteered to carry out the risk assessment for the visit; volunteered to ensure all consents have been obtained; and volunteered to check indemnity forms. You are asked: prior to any visit to advise the FTC if you are under 18, or if you have any fitness or health problems, and to abide by the FTC's decision as to your participation in the visit; be on time, but phone beforehand if you know you are to be delayed. Have the required PPE; read and carry out the recommendations on the risk assessment for the visit; behave in a responsible manner and ensure that none of your actions endanger either yourself, other people, property or equipment on site, or the reputation of the Russell Society; sign the Field Trip Indemnity Form; follow any instructions from the FTC and any site management. You could volunteer to do a write up for the Russell Society Newsletter.

Assessing risk

One of the major benefits to be derived from membership of a recognised society is the opportunity of attending organised field excursions to geological exposures and collecting sites, often to what are normally restricted places working quarries and pits, or sites on private land for which special permission is necessary. Risk assessments demonstrate a responsible attitude to H&S, such that the Society has been able to obtain insurance for field visits. By assessing risk we can show to all involved in the visit

what the risks are, who is at risk, and what precautions each attendee should take to reduce risk, they are for our safety. Under current H&S legislation all members of an organised society have a duty to do all that is reasonably possible to ensure activities are carried out such that any risks to the members of the society, personnel in other organisations, and members of the public are properly managed. The generalised risk assessments below should not be used as a definitive guide, a truly effective risk assessment takes place on site with an experienced individual undertaking the assessment, but members are advised to read these prior to a visit. Russell Society FTC's are sufficiently experienced to recognise risks involved and make individual risk assessments for each visit. For those trips to mountains, rough country, mines and caves, it is essential that the FTC present is experienced in this type of environment.

Active quarries and pits

Do not enter an active quarry or pit without permission of the owner/operator. Follow the advice/instructions given by the site management.

Risks Include

Conveyors	Excavations or rakes	Drainage sumps of unknown depth	Frozen water
Vertical faces	Hypo/hyperthermia	Moving machinery and equipment	Blasting
Polluted water	Unstable stock piles	Slippery ground (especially after rain)	

Actions

PPE to be worn. Do not approach a vertical face or go beyond the boulder or guard rail protection without express permission. The stability of vertical faces can be affected by heavy rainfall or icy conditions. Do not clamber on unstable boulder or scree slopes. Do not work directly above/below people collecting. Do not approach any sludge pit, lagoon or sump hole, their depth is often deceptive. Do not walk on areas covered with ice or mud, it may conceal a pit or lagoon. Many flooded pits have a bloom of blue-green algae this can produce toxins which may cause rashes following skin contact and serious illnesses if accidentally swallowed. Avoid exposure, both from heat and cold. Vehicles are be given priority of movement, make the driver aware you are there. Stand well clear of any conveyors, crushing and screening equipment; cables must be avoided. Ensure the party enters the 'safe area' before any blasting takes place, do not re-enter the quarry until given permission to do so. The active area in quarries and pits may have moved over time, be aware of old workings and shafts.

Disused or abandoned quarries or open pits

Many of the risks associated with active quarries are also associated with disused ones.

Risks may also include

Other users - shooting/bike scrambling	Hidden drainage channels	Dumped hazardous waste	Undergrowth may disguise hazards	Flooded pits – drowning, pollution, exposure
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Actions

Never attempt to enter disused pits and quarries without permission. Follow the same principles for a visit to any working quarry. Respect the rights of other authorised users, such as fishing clubs.

Landfill sites

Many worked out quarries and pits are used as landfill sites and these present their own particular hazards. Landfill sites are high risk areas and should be avoided unless a visit there is absolutely essential. Do not enter an active landfill site without permission of the owner/ operator. Follow the advice/instructions given by site management.

Risks Include

Toxic waste	Tipping areas	Clinical waste, needles, other sharps
Contaminated ground	Landfill leachate	Landfill gases

Actions

Never walk across material that has just been tipped. Stay clear of vehicles and mobile plant operating in the area. Landfill leachate is the by-product of water entering the waste mass, it is often corrosive and skin contact must be avoided. Do not touch any dead animals. Wear appropriate PPE. Consider other risks including Weil's disease and tetanus (see appendix).

Coastal exposures and tidal rivers

Risks Include

Tides	Access to and from shore	Deep pools, fissures in the ground
Sea walls (not fenced)	Exposure to cold/sun/heat	Slippery rocks
Marine life -painful stings	Unpredictable weather	Quicksands and soft ground
Falling rocks/debris	Mudflows and land slipping	Strong on/off-shore winds
Pollution-sewage outfalls	Beach debris-broken glass	

Actions

Check tide-tables. Be aware of tidal systems, spring and neap tides, weather systems. Check weather forecast. Have the telephone number of coastguard, doctor, hospital. Allow plenty of time for a safe return around headlands that could be cut off by an incoming tide.

Mountains and rough country

Risks Include

Steep edges	Boggy ground	Deteriorating weather - fog or snow
Weak/dangerous cliffs	Falling rocks	Scree avalanche
Getting lost	Trackway condition	Crossing river/stream, stiles fences
Hypo/hyperthermia	Fissures in the ground	Snow cornice

Actions

Have whistle, map and compass, and the skills to use them. Tell a responsible person where you intend to go and what time you plan to be back, and inform them of your safe return. Check the weather forecast and cancel visit if necessary. Mobile phones are useful but only if there is reception. GPS may be useful but this is no substitute for a map, compass and the skills to use them. Take warm and brightly coloured waterproof clothing, a change of socks and a survival blanket. A bar of chocolate can boost energy if caught out. Take open country gear as necessary; walking stick; but the Russell Society insurance does not cover members for the use of any ropes. Keep together, the FTC may slow the pace accordingly. Have an experienced member of the group at the rear, who knows the route and skills for the use of map, compass, and whistle.

Mines, caves and mine dumps

Underground trips to abandoned mines are not permitted as part of Society activities. Remember – entering a mine or a cave alone is foolhardy and should never be attempted.

Risks Include

Roof fall	Excavations	Gases-carbon dioxide/monoxide	Dead animals
Toxic minerals	Hidden shafts	Weather – rainfall, rapid flooding	Stope collapse
Deep water	Contaminated water	Spoil heap slumping	Open shafts
Getting trapped	Getting lost	Old buildings, machinery and equipment	

Actions

Remembering that underground trips to abandoned mines are not permitted: Waste material has often been dumped on tips or hillsides, most of these tips are old and quite stable, but prolonged rainfall can sometimes affect slope stability. Ensure holes do not affect slope stability or break into an old shaft or pit. Keep well clear of old buildings, plant and machinery. Look out for each other. Have suitable equipment. Notify a responsible person of the visit and your safe return. Check the weather forecast.

General Hazards connected with mineral species or collecting site

Risks Include

Toxic and radioactive minerals Illegally dumped toxic waste

Actions

Some minerals are potentially toxic, particularly those associated with metalliferous mining. When collecting from mineral tips ensure that blown dust does not get into your eyes (wear eye protection). Use gloves and clean your hands before eating or, at least, keep the hand-held portion of your food in the wrapper. If you are displaying minerals to the general public it is advisable to exclude all radioactive specimens and to keep any toxic minerals in display boxes where they cannot be touched.

Hazards connected with the use of chemicals

Hazards connected with the use of chemicals during Society activities should be properly risk assessed and controlled.

Hazards connected with other presentations

Ensure all electrical equipment being used is in good order. Ensure all cables do not cause a 'trip hazard'. Take care when using UV lamps (safety glasses with UV filters are available) to demonstrate fluorescent minerals. Take care when using sharp edged samples – e.g. quartz – to avoid cuts. Take care when using heavy samples.

Appendix

Recommended contents of a first-aid kit

This is a recommended list of contents to be included in a first aid kit to be taken on mineralogy fieldwork visits. It includes the full contents specified in the Health & Safety Executive Guidelines plus additional items considered necessary for geological field excursions and quarry visits.

Contents	Quantity	Contents	Quantity	Contents	Quantity
First Aid Guidance Leaflet	1	Moist cleaning wipes	6	Sterile eyewash	3
Vinyl gloves	2	Assorted adhesive dressings	10	Crepe bandage	2
Scissors	1	Ventaid personal air way	1	Eye pads	2
Low adherence dressings	4	Large dressings	2	Safety pins	6
Triangular bandages	2	Medium dressings	2	Instant ice packs	1

Tetanus It is recommended that members who regularly work in the field are vaccinated against tetanus infection. Tetanus spores are commonly found in soils and may affect minor wounds where the skin is broken. Protection lasts for at least five years, after which a booster is required. Contact your local doctor for details.

Weil's disease (Leptospirosis) This serious and sometimes fatal infection is caught through contact with infected sewage or contaminated water. The infection, caused by the bacterium leptospira, is transmitted through infected rats' urine. Infection can occur through scratches and cuts on the skin or through the mouth, eyes, nose and ears. The disease starts with flu-like symptoms such as severe headaches and aching limbs, followed by jaundice and organ failure. The illness is treatable during the early stages with antibiotics. If, within four to six weeks of contact with sewage or contaminated water, these symptoms develop, members should immediately see a doctor and explain that they have been working in circumstances where they may have been at risk.

Limes Disease Ticks that carry the bacteria for Lyme disease are found throughout the UK, check your locations. Avoid exposed skin (tuck trousers into socks), check for ticks on skin at end of day, and remove any found ASAP.