

Dorset and East Devon Coast World Heritage Site

Management Plan 2009-2014

APPENDIX 1: Fossil Collecting



ACCESSIBILITY

If you require a copy of this document in a different format, please contact us and we will do our best to provide it in a way that meets your needs

YOUR VIEWS

The most important people for the future protection, conservation and use of the Dorset and East Devon Coast are those who live or work on or near it, and visit and enjoy it. Please let us know your views on the Site and its management through the contact details below.

CONTACT DETAILS

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The code detailed below is subject to a review to be undertaken in light of Policy 2.6 of the 2009-2014 Management Plan. This appendix will therefore be modified during the lifetime of the new Management Plan.

A4-1 Code of Conduct for the West Dorset Coast

Developing a Code of Conduct

A Working Group of landowners, conservation organisations, museum curators and local fossil collectors has developed this Fossil Collecting Code. The Group was established in order to address growing conflicts of interest with regard to fossil collecting along the West Dorset coast. The Group recognises the essential need for fossil collecting to continue. However, it also recognises that collecting must be carried out in such a way as to satisfy all those with an interest in our fossil heritage.

This Code, though specifically aimed at professional and dedicated amateur collectors, also applies to all those who come here to collect fossils, whether for study or recreation. The safest and best advice, particularly for inexperienced collectors and educational groups, is that they should restrict their activities to the beaches alone. Advice to this effect is provided by interpretation signs, leaflets and the services of the Charmouth Heritage Coast Centre.

The Code has been developed by:

Jurassic Coast World Heritage Team

Natural England (was English Nature when the code was developed)

The National Trust

Charmouth Parish Council

Charmouth Heritage Coast Centre

Dorset and Somerset Museum Services

Local fossil collectors

Other input came from representatives of the British geological Survey and the Dorset RIGS group.

The Geology and Fossils of the West Dorset coast

The West Dorset coast contains one of the finest exposures of rocks from the Lower and Mid Jurassic Period to be found anywhere in the world. High erosion rates, particularly in the winter, ensure a plentiful supply of fossils onto the beaches. This coast is one of the best sources of marine Jurassic aged fossils in the world and numerous important finds have been and continue to be made here. Not surprisingly it was designated by Natural England as a Site of Special Scientific Interest (SSSI) for its geology, fossils and landslides, and forms a key part of the World Heritage Site.

Fossil Collecting

On the rapidly eroding West Dorset coast, fossil collecting is essential if specimens, some of which may be of great scientific value, are to be saved from damage or destruction by the sea. Collecting also offers an opportunity for people to learn about the ancient past and to contribute to our understanding through the discovery of new finds or the development of scientific study.

However, it is important that fossils are collected both responsibly and safely.

Fossil Collectors want to be able to collect fossils freely. For many it is both a great learning experience and recreational activity. Most collectors, both amateur and professional, have a deep-seated interest in palaeontology and a wish to contribute to the development of the science. Professional collectors have most time and a great deal of local knowledge, but they need to sell their finds in order to earn a living.

As a general rule, **Landowners** own the fossils on or under their land. The National Trust is the principal landowner along the West Dorset coast. The Trust is a registered charity charged with preserving places of Historic Interest or Natural Beauty for the Nation to enjoy. All along the West Dorset coast it seeks to preserve the landscape and nature conservation interests and to provide public access over its property so far as that is consistent with its preservation.

Natural England is the Government's statutory advisor on conservation including the Earth sciences. It designates National Nature Reserves and Sites of Special Scientific Interest and promotes sustainable management of these sites.

Museum curators and Researchers are keen to secure key scientifically important specimens for recognised collections as part of the nation's heritage and to provide a collection upon which scientific research can be based. Curators and researchers seek to ensure that the maximum associated scientific data is gathered when specimens are collected. Some researchers require access to strata and specimens *in situ* in order to undertake their work.

Objectives of the Code

The interests of all those involved with fossil collecting on the Dorset Coast need not be mutually exclusive, indeed many interest groups can assist each other so long as each party is aware of, and accepts the interest of the other. The proposed fossil collecting Code of Conduct is an attempt to balance those interests.

The primary objectives of the code are to:

- ***promote responsible and safe fossil collecting***
- ***restrict the excessive digging or 'prospecting' for fossils along fossil rich strata***
- ***clarify ownership of the fossils***
- ***promote better communication between all those with an interest in fossils from the West Dorset coast***
- ***Promote the acquisition of key scientifically important fossils by recognised museum collections.***

Area covered by the Code

The area covered by the Code is land in National Trust and Charmouth Parish Council ownership between Lyme Regis and Hive Beach at Burton Bradstock. The Code will be reviewed by the Working Group as required.

Health and Safety

The following is a general list of practical advice aimed at all types of collector including professionals and amateurs, educational/academic visitors and the general public including holiday makers and local people.

- Always consult tide tables before collecting. It is advisable that you go collecting on a falling tide. A particular hazard is the beach immediately east of Lyme Regis, which is cut off shortly after low tide. It is advisable to walk to Lyme on a falling tide only.
- Always advise someone of where you are going and at what time you can be expected to return.
- Be vigilant and exercise common sense in the vicinity of any cliffs. Cliff falls tend to occur suddenly and without warning. Avoid cliff bases.
- Avoid walking on, and keep clear of, visibly moving rock falls and mudflows. Note particularly that the seaward edges of mudflows may be covered by shingle and can be particularly treacherous.
- If you are using a hammer or other tools, it is advisable to wear safety goggles.
- Exercise common sense when considering what clothes and safety items to wear and take with you.
- Collectors should not descend the cliffs using ropes to get to a particular level under any circumstances.

For professional and experienced amateurs collecting from cliffs, undercliffs and the foreshore, the Code provides as follows:

1. There should be no digging *in situ* in the cliffs (except in special circumstances- see 4. iv.)
2. Collectors should adopt a common sense approach to their activities and not expose themselves to excessive risks. They should cease immediately on becoming aware that their activities present a risk to a third party.
3. Collectors should take particular care in connection with the following features:
 - Unstable cliffs, especially in areas where recent cliff falls have occurred or are ongoing
 - Mudflows and landslides
 - Tides, rough seas and poor weather conditions
4. Cliff excavations: Collectors wishing to extract fossils from the cliffs should use the following procedure:
 - i. Obtain the landowner's permission before taking any action to excavate any part of the find [subject to iv. below].
 - ii. Prepare a Risk Assessment (RA) for the excavation to identify the hazards that may arise in the course of the excavation, and the precautions that should be adopted, to protect the collector and others in the vicinity. This should then be discussed with the landowner.

Items that the RA is likely to cover are as follows:

- To cordon off the area of working.
- To ensure, as far as practicable, the stability of the surrounding area during the excavation.
- Effective communication among all parties involved in the excavation (including the landowner), and a procedure for dealing with accidents or problems arising from the work.

- To ensure as far as practicable that the site is safe when left unattended, and that appropriate signing etc. is in place.

This list is by no means exhaustive and collectors should satisfy themselves that all risks have been assessed.

- iii. Keep the landowner informed of progress with the excavation, and advise when completed.
- iv. In the event of a fossil being located which is at immediate risk of being lost or damaged, the collector may proceed with the excavation provided that he gives full consideration to the risks and takes appropriate action to alleviate them, and is satisfied that the work will present no risk to any third parties. The collector should notify the landowner at the next available opportunity.

Key Scientifically Important Fossils Recording Scheme

There are two categories of fossils recognised within the Recording Scheme; **Category I, Key Scientifically Important Fossils**, and **Category II** for fossils of **some (but not key) importance**.

Category I fossils include new species or those specimens which may represent new species, fossils which are extremely rare such as the Charmouth dinosaur *Scelidosaurus* and fossils that exhibit exceptional preservation.

Category II fossils include vertebrates such as reptiles and fish, partial or complete, especially where the horizon of origin can be identified. Nautiloids and certain ammonites together with unusual assemblages of fossils are also included.

A full list of both categories can be found at the end of this document.

To comply with the Code, all **Category I** fossils are to be recorded and certain restrictions apply to their disposal (see 4. and 5. below). To comply with the Code it is not obligatory to record **Category II** fossils although it is strongly recommended. No restrictions apply to the disposal of Category II fossils.

1. All Category I records should include an identification of the specimen (if known), a photograph, the exact location of the find together with the scientific horizon (if known), the date of the find and any other related observations. The name of the collector will be kept with the record but may not be available directly within public records depending upon the wishes of the individual.
2. The Charmouth Heritage Coast Centre will photograph the specimen and the record will be kept in paper form and on an Internet site. The Centre will, as and where necessary, act as an intermediary between collectors and other interested parties.
3. Where a specimen is being recovered over a protracted period, it should still be recorded but the exact location of the site may be withheld in order to protect the finder's interest until the specimen has been fully recovered.
4. The preparation of Category I specimens should only proceed after consultation with appropriate academics or museum curators unless preparation is clearly straight forward or work needs to be carried out urgently.
5. Under the Code, collectors who intend to sell their Category I specimens will offer them to registered museums for a period of six months. If no purchase has been agreed by this time, the collector will be free to offer the specimen elsewhere. The recording scheme should be updated accordingly.

6. Those individuals with private collections that contain Category I specimens are encouraged to make provision for the ultimate placement of such specimens within registered museums.
7. The scheme offers a channel of communication for curators and researchers to convey their interests to collectors. The Charmouth Heritage Coast Centre staff will convey this information to collectors and generally promote communication between all parties.

Fossil ownership

At present the Code applies to National Trust and Charmouth Parish Council land only. Both landowners wish to make clear their ownership of these fossils but they are willing to see ownership transferred to those collectors who follow the Fossil Collecting Code of Conduct and record their key scientifically important fossils.

Maps of land ownership will be provided at the Charmouth Heritage Coast Centre and the Code will be promoted to other landowners along the West Dorset coast.

Contact information

Charmouth Heritage Coast Centre, Lower Sea Lane, Charmouth, Dorset DT6 6LL Tel 01297 560772. The web site can be found at www.charmouth.org under the 'fossils' button.

Permission to undertake excavations should be sought from the National Trust wardens:

The National Trust, West Dorset Office, The Court,
The Street, Charmouth, Dorset, DT6 6PG. Tel 01297
561900. Open hours are 10.00-1.00 and 1.30-3.30 Monday to Friday.
Helen Mann mobile: 07768 065362
Rob Rhodes mobile 07747 756549

Charmouth Parish Council, The Elms, The Street, Charmouth, Dorset DT6 6LN tel. 01297 560826

Please note:

Those collectors who do not follow this code, particularly by digging or prospecting *in situ* in the cliffs, or failing to record Category I fossils, may be regarded as stealing the fossils, and appropriate legal action may be taken against them.

Key Scientifically Important Fossils

The Jurassic rocks exposed on the West Dorset coast contain abundant and extremely diverse fossils. Therefore the following lists aim to provide general guidance only and are not to be regarded as fully comprehensive. Wherever there is doubt about the scientific importance of any fossil finds, collectors are recommended to contact the relevant fossil group specialist(s) for assistance.

Category I fossils

- a) Fossils which certainly represent new species. These can belong to any taxonomic group – vertebrate, invertebrate or plant.
- b) Fossils that are thought to represent new species. Again these can belong to any group - vertebrate, invertebrate or plant. (Subsequent work may indicate that some of these are not in fact new species and provided that they do not fall within 1c) or 1d) below, they may be ‘downgraded’ to Category 2 fossils).
- c) Fossils that are extremely rare. Although not necessarily new species they are nevertheless clearly of great scientific importance. Examples include: dinosaurs, pterosaurs, sharks and rays, (near) complete insects and arthropods (crustaceans, crabs), recognisable leaf fronds and plant cones etc. This subcategory includes forms which are very rare in certain stratigraphic levels if found *in situ* or where the stratigraphic horizon can be identified satisfactorily; for example, fossil echinoids or gastropods are rarely found within the clay dominated Lower Lias strata.
- d) Fossils which exhibit exceptional preservation. For example, ichthyosaurs (or other vertebrates) showing skin texture, uncrushed skulls which could provide data on brain size or other physiological aspects etc. Among invertebrates, fossil cephalopods (cuttlefish, squids, ammonites or belemnites) showing traces of gill structures, arms and hooks etc are of key scientific importance.

Note: Some fossils from the Lias, such as ichthyosaurs, are not uncommonly found with traces of soft tissues preserved. These would not be regarded as Category I unless there are soft part features preserved which are particularly rare or exceptional. The same may be true for certain invertebrate groups, such as belemnite ‘ink sacs’, which are not that uncommon in the Black Ven and Belemnite Marls.

Category II Fossils

Reptiles: ichthyosaurs and plesiosaurs etc.

Fish: including sharks, rays, coelacanths, bony fish etc.

Fossil remains, especially fragmentary, isolated, bones or scales etc, may be relatively common in some beds. The stratigraphical range of many forms is poorly known and any data may be important to relevant specialists. It is recommended therefore that collectors do record significant, recognisable finds if found *in situ* or where the stratigraphic horizon can be identified satisfactorily.

Arthropods: insects

Relatively scarce fossils, mainly recorded from the woodstone/flatstone horizons. Many insect remains are indistinctly preserved, but given their scarcity, any recognisable forms are worthy of recording.

Molluscs: belemnites

Extremely common fossils especially in the form of isolated belemnite guards. It is not anticipated that these would be recorded, unless a particular bedding-plane concentration ('belemnite battlefield') or similar fauna was collected.

Molluscs: ammonites

One of the most common and characteristic fossils from the Dorset coast occurring throughout the section. Many of the usual taxa are abundant and comprise the 'bread and butter' specimens for commercial, amateur and tourist collectors. It is not anticipated that these forms would be recorded, although any unusual species or particularly large/mature shells showing apertural details etc are worthy of inclusion in the database.

Molluscs: nautiloids

A neglected group of fossils, occurring throughout much of the succession and rarely collected commercially. It is not expected that these would be recorded, though exceptional specimens (e.g. bedding plane assemblages or others yielding palaeoecological data) are worth considering for inclusion on the database.

Molluscs: bivalves

An abundant group of fossils, occurring throughout much of the succession and rarely collected commercially. It is not expected that these would be recorded, although exceptional specimens (e.g. bedding plane assemblages or other preservations yielding palaeoecological data) are worth considering within the database.

Brachiopods

As bivalves above

Echinoderms: crinoids and starfish

A group of considerable interest to collectors, especially specimens from the 'Pentacrinite' and 'Eype Starfish' beds. There are many specimens of these in public collections and it is not anticipated that specimens would normally be recorded. However, exceptional accumulations of crinoids attached to drift wood etc, or of brittle stars, are worthy of recording on the database.

A4-2 Geologists' Association Code of Conduct for Geological Fieldwork

The Geologists' Association Code of Conduct for Geological Fieldwork is the benchmark national code of practice within the UK for professional and amateur field geologists. It sets out recommendations for best practice in relation to all aspects of field work.

A CODE FOR GEOLOGICAL FIELDWORK

Little has changed to alter our original message of 1975 when our first Code was printed. There is still pressure on the limited outcrops available to us in an overpopulated island. We need more than ever to co-operate with authorities and landowners to maintain free access to geological localities. Conducted parties and professional geologists may follow their own procedures, but for the amateur geologist or beginner the key requirements are to ask permission at all times, preferably in advance; to follow instructions from those who know; and always to regard access as a privilege to be respected by good behaviour. Explain your interest and intentions at all times. Geologists must be seen to be using the countryside responsibly and observing the following general rules:

1. Obey the Country Code and observe local byelaws. Remember to shut gates and leave no litter.
2. Always seek permission before entering onto private land.
3. Don't interfere with machinery.
4. Don't litter fields or roads with rock fragments that could cause injury to livestock or be a hazard to vehicles or pedestrians.
5. Avoid undue disturbance to wildlife. Plants and animals may inadvertently be displaced or destroyed by careless actions.
6. On coastal sections, whenever possible consult the coastguard service about tides or local hazards such as unstable cliffs.
7. When working in mountains or remote areas, follow the advice given in the booklet 'Safety on Mountains' issued by the British Mountaineering Council, and in particular **inform someone of your intended route**.
8. When exploring underground, be sure you have the proper equipment and the necessary experience. **Never go alone**. Report to someone your departure, location, estimated time below ground and then your actual return.
9. Don't take risks on insecure cliffs or rock faces. Take care not to dislodge rock: others may be below.
10. **Be considerate**. Don't leave an exposure unsightly or dangerous for those who come after you.

COLLECTING AND FIELD PARTIES

1. Students should be encouraged to observe and record and **not to hammer indiscriminately**.
2. Keep collecting to a minimum. Avoid removing in situ fossils, rocks or minerals unless they are **genuinely** needed for serious study.
3. For teaching purposes, the use of replicas is recommended. The collecting of actual specimens should be restricted to those localities where there is a plentiful supply, or to scree, fallen blocks and waste tips.
4. **Never** collect from walls or buildings. Take care not to undermine fences, walls, bridges or other structures.
5. Leaders of a field party are asked to ensure that the spirit of this Code is followed, and to remind their party of the need for care and consideration at all times. They should remember that their supervisory role is of prime importance. They must be supported by adequate assistance in the field. This is particularly important on coastal sections or over difficult terrain, where parties may easily become separated.

VISITING QUARRIES

1. One individual, or the leader of a party, should have obtained prior permission to visit.
2. Leaders should have familiarised themselves with the current state of the quarry. They should have consulted the Manager as to where visitors may go and what local hazards are to be avoided.
3. On every visit, both your arrival and departure must be reported.
4. Safety hats are **obligatory**, stout boots are strongly recommended.
5. Keep away from vehicles and machinery.
6. Be sure that blast warning procedures are understood.
7. Beware of rock falls. Quarry faces may be highly dangerous and liable to collapse without warning.
8. Beware of sludge lagoons.

RESEARCH WORKERS

1. No researcher has the right to 'dig out' any site.
2. Excavations should be back-filled where necessary to avoid hazards to men and animals and protect vulnerable outcrops from casual collecting.
3. Don't disfigure rock surfaces with numbers or symbols in brightly coloured paint.
4. Ensure that your research material and notebooks eventually become available to others by depositing them with an appropriate institution.
5. Take care that the publication of details does not lead to the destruction of vulnerable exposures. In such cases, avoid giving the precise location unless this is essential to scientific argument. Details of such localities may be deposited in a national data centre for Geology.

SOCIETIES, SCHOOLS AND UNIVERSITIES

1. Foster an interest in geological sites and their wise conservation. Planners and local authorities may not realise the importance of a site to geologists. Much may be done by collective effort to help clean up overgrown sites with the owner's permission and in consultation with the national conservation agency (English Nature, Scottish Natural Heritage, Countryside Commission for Wales).
2. Where necessary, create working groups to work on conservation. Regional Geological Societies are managed by just such groups, with representation of all interests concerned (addresses from the GA Office or the Joint Nature Conservation Committee, Monkstone House, Peterborough, PE1 1JY).
3. Make contact with your local County Trust, Field Studies Centre, local Museum or Society. Addresses should be available through local museums or reference libraries or otherwise the GA Office.

HEALTH AND SAFETY

Ever since the introduction of the Health and Safety at Work Act, safety measures are more strictly enforced, especially in quarries or other excavations. Protective clothing, particularly safety helmets, must be worn at all times by employees, and visitors are also expected to observe the same precautions, generally as a condition of entry to the site. Suitable helmets are readily available and cheap to buy, and they should be part of the standard equipment of every geologist. **In quarries helmets must be worn at all times.**

NOTE TO LANDOWNERS

Landowners may want to know if visiting geologists are familiar with this Code. In cases of abuse they might care to note the names, addresses and the Institution or Society of Offenders. All complaints or enquiries may be addressed to:

The Geologists' Association
Burlington House, Piccadilly
LONDON, W1V 9AG; Tel: 0171434 9298

A CODE FOR CORING

In recent years some researchers within Geology have chosen to take small diameter cores from rock outcrops, using hand-held power tools. This new sampling technique is a neat one compared to hammering, but it can cause very unsightly scarring of an exposure if great care is not taken to core only from faces out of direct view. There have been many instances of thoughtless drilling which have caused more anger to general public and landowners alike than any other form of collecting. The practice is especially unacceptable in well-known beauty spots, but at any site prior permission must be obtained from the owner. These guidelines should be observed at all times:

1. Take cores from the least exposed faces and **NOT** those most visible from site entrances or from the approaches to a natural exposure.
2. Take only the **minimum** number of cores, and avoid closely spaced patterns, such as might attract undue attention.
3. As best you can, try to plug the holes with debris of similar material and colour. Whenever possible, **refill** the holes with plugs of slightly smaller diameter drilled from fallen blocks.
4. Respect the feelings of other geologists, who may have curbed their natural instincts and adhered to a 'no hammering' rule at the same locality.