

# NEWSLETTER

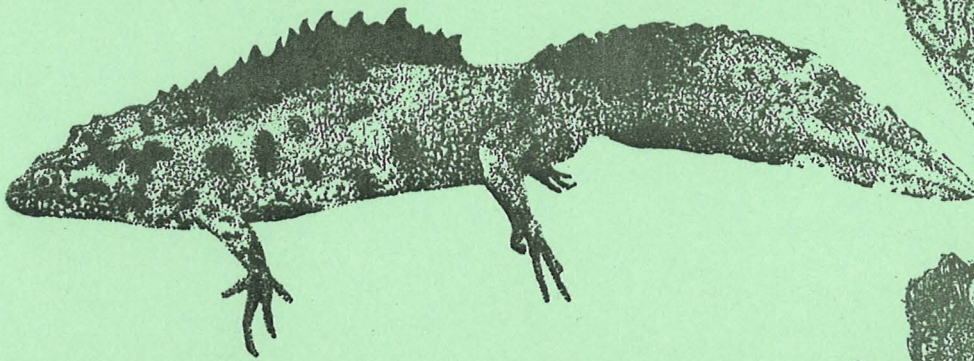
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Volume 3 Part 3

1982

Biology Curators' Group





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Editorial



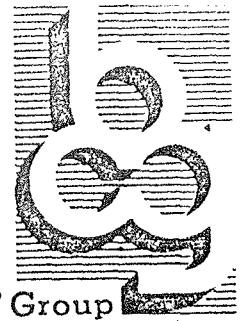
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Only four weeks ago, at the Sheffield A.G.M., we were elected as editors for the Newsletter. In this short time we have already fully realised the efforts of our predecessors. In particular we must thank Geoff Hancock, not only for his editorial involvement with the Newsletter for the past five years, but also for the smooth hand-over and good housekeeping of all those back-up files which make an editor's life easier. All we require now is a lot of interesting copy from yourselves to make our lives easier.

Geoff Hancock will not be allowed to escape entirely as he will continue as Production Editor in charge of printing and distribution.



BIOLOGY CURATORS' GROUP

CONSTITUTION

- 1.0 The name of the Group shall be the Biology Curators' Group.
- 2.0 The aims of the Group shall be:-
  - to facilitate the exchange of information between individuals concerned with the management of biological collections and records, their research, conservation and interpretation.
  - to present the views of curators of biological collections.
- 3.0 There shall be the following membership categories:-
  - Individual membership shall be open to any individual interested in the aims of the Group.
  - Institutional membership shall be open to any organization interested in the aims of the Group.
  - Honorary membership shall be open to individuals on the recommendation of the committee and approved by an Annual General Meeting.
- 4.0 Rights of members.
  - 4.1 Individual members shall be eligible to:-
    - attend and vote at all meetings of the Group
    - receive one copy of each Newsletter of the Group.
  - 4.2 Institutional members shall be eligible to:-
    - nominate one person who shall have the right to attend all meetings of the Group
    - receive one copy of each Newsletter of the Group.
  - 4.3 Honorary members shall have the same rights as individual members.
- 5.0 Committee
  - 5.1 The management of the Group shall be vested in a committee consisting of the Officers and 9 committee members.
  - 5.2 The Officers of the Group shall be the Chairman, Secretary, Treasurer, Membership Secretary, and the Editor.
  - 5.3 The Officers shall be elected at the Annual General Meeting of the Group and shall serve for one year but shall be eligible for re-election.



- 5.4 Members of the committee, other than the Officers, shall be elected at the Annual General Meeting and shall serve for a period of three years. Three members shall retire by rotation each year and shall not be eligible for re-election for one year.
- 5.5 Nominations for Officers and committee members must be supported by two members of the Group. Nominations, in writing, must reach the Secretary at least two weeks before the Annual General Meeting.
- 5.6 When more than one nomination is received for one position, the election shall be decided by a single majority vote at the Annual General Meeting.
- 5.7 The committee shall have the power to co-opt.
- 5.8 A quorum of the committee shall consist of 5 members, one of whom must be an Officer.
- 6.0 Financial management
- 6.1 An annual subscription shall be levied on all members. The rate of subscription shall be decided at the Annual General Meeting.
- 6.2 A Bank account shall be maintained by the Treasurer on behalf of the Group.
- 6.3 The committee shall nominate those of its members authorised to sign cheques. Two signatures shall be required for each cheque.
- 6.4 No Officer or member of the committee shall be appointed to a salaried office of the Group, receive any benefit in money or money's worth or be interested in the supply of goods and services at the cost of the Group.
- 6.5 An annual statement of accounts of the Group shall be audited and presented to the Annual General Meeting.
- 7.0 Annual General Meetings
- 7.1 An Annual General Meeting shall be held in each calendar year.
- 7.2 Resolutions to be put to an Annual General Meeting must be submitted in writing to the Secretary, to arrive at least four weeks before the Annual General Meeting.
- 7.3 An agenda for the Annual General Meeting shall be circulated to all members to be received at least two weeks before the Annual General Meeting.
- 7.4 Resolutions to be put to an Annual General Meeting must have the support, in writing, of at least two members of the Group.
- 7.5 Resolutions put to the Annual General Meeting shall be decided by a single majority vote.

- 7.6 Twenty members of the Group shall constitute a quorum at an Annual General Meeting.
- 7.7 A report of the activities of the Group in the preceding year together with a statement of income and expenditure shall be presented to and approved by the Annual General Meeting.
- 7.8 No amendment shall be made to the Constitution that would cause the Group to cease to be a charity at law.
- 8.0 Extraordinary General Meeting
- 8.1 An Extraordinary General Meeting may be called if it has the support of at least one quarter of the voting membership.
- 8.2 A quorum at an Extraordinary General Meeting shall be 20 voting members.
- 9.0 Dissolution of the Group
- In the event of the dissolution of the Group any net funds and assets remaining after the satisfaction of all proper debts and liability will be transferred to another body that is a charity at law (and having similar objects).

Agreed at the annual general meeting held on 2nd April 1982

IS SHE MY TYPE?

Hereford City Museum

27th April, 1982

Dear Sir,

For some time I have been pondering this question, and with all the interest in systematics being shown by the BCG and others, I wonder if you or any of your readers can supply an answer. It is simply this - where is or what form does the type of Homo spaiens take? If there is no Type, I do not wish to volunteer myself as Lectotype, but would be more than willing to be considered for a member of any Committee set up to establish Allotype, and with this in mind I suggest the BCG starts at once to advertise for a large number of young ladies willing to submit themselves for investigation (in the name of Science of course).

Perhaps after all we are not a valid species?

Yours faithfully,

Jonathan Cooter



PAPER PREPARED BY THE DEPARTMENT OF THE ENVIRONMENT FOR THE SEMINAR ON  
FRIDAY 14 MAY TO CONSIDER THE IMPLICATIONS OF THE WILDLIFE AND COUNTRYSIDE ACT  
FOR MUSEUMS

WILDLIFE AND COUNTRYSIDE ACT

Effects on Museums

Part I of the Wildlife and Countryside Act 1981 is concerned with species protection; birds, other animals and plants. This paper looks at the legislation as it affects museums.

Birds

Many of the bird protection measures repeat provisions in the Protection of Birds Acts 1954-67. Two changes affect museums in particular; possession of eggs and sale of dead birds.

Possession of Eggs

The Protection of Birds Act 1954 prohibited with a limited number of specified exceptions the taking of eggs. The possession of eggs, however, was not an offence. This proved to be a serious loophole and has now been closed by the new Act. It was also necessary to make new provision to comply with the requirements of the European Community Directive on the Conservation of Wild Birds.

Section 1(2)(b) makes it an offence for anyone to be in possession or control of an egg or eggs of any wild bird or any part of an egg (including a blown egg), taken after the Act has come into force with exceptions for the eggs of pest species (Schedule 2 Part II - Annex 1) and those taken under licence. Existing egg collections are not directly affected. The burden of proving that an egg is lawfully in possession lies with the "keeper" of the egg. The provision applies equally to the birds themselves and follows from a similar provision in the 1954 Act though that applied only to "recently taken" birds.

An owner of eggs who feared being charged with illegal taking might wish to be able to show that the eggs in his collection have been acquired before the Act came into force or that they had been taken from the wild under the Act's licensing provisions. Museums, though subject to these provisions, should not normally have any problems. Those which do not have properly documented collections would be well advised as a matter of prudence to document them. It is for museums themselves to decide on how best to protect themselves from accusations of contravening the bird protection legislation. Museums should have little difficulty with the Courts provided they have sensible safeguards and security which, in view of the known pressures on rare birds from illicit egg collecting, it is reasonable to expect should already exist. If a museum's collection is not properly documented it could protect itself by keeping full records of eggs that come in after the Act comes into force. All non-recorded eggs could therefore be presumed to antedate the Act but if necessary the curator of the collection could swear out an affidavit to this effect.

### Sale of Dead Birds

Section 6 of the Act prohibits the sale of dead birds with certain limited exceptions except for persons registered with the Department of the Environment in accordance with Regulations made by the Secretary of State. Sale includes hire, barter and exchange. Attached at Annex 2 is a copy of the Department's "Guide to the Registration of Sellers of Dead Birds", which explains the new provisions. A copy of the guide has been sent to all those who have applied to register under Section 6 and it is considered that any active taxidermists or keeper of bird skins should be so registered either institutionally or as an individual.

### Other Animals

The Act also protects certain other animals - those listed in Schedule 5 (Annex 3) - and includes prohibitions on their possession and sale. These provisions extend not only to adult animals but also their eggs, larva, pupae or other immature stages.

Certain animals are listed only in respect of the sale provisions. The purpose is to monitor the level of trade and so licences are freely issued permitting sale of these species. There is not a registration scheme. Applications to sell any protected animals should be made to the Department of the Environment in Bristol. Similarly, for protected plants listed on Schedule 8 (Annex 4) to the Act.

### Endangered Species (Import and Export) Act 1976

A number of changes have been made to this Act. The principle change affecting museums is the ban on sale, except under licence, of species listed on the new Schedules 4 and 5 to the Act (Annex 5). The species on these Schedules are almost entirely those listed on Appendix 1 to the Washington Convention on International Trade in Endangered Species (CITES). Again, applications to sell species (including their parts and derivatives) on this list should be made to the Department in Bristol. The provisions only apply to items imported after the coming into force of Part I of the Wildlife and Countryside Act. It is not enough to show that specimens were legally imported to be able to sell them unless the licence to import also permits subsequent sale.

Department of the Environment

April 1982



Preliminary report of the Seminar held at the Natural History Museum in London on Friday 14th May to consider the implications for museums of the Wildlife and Countryside Act (1981).

The Seminar was arranged by the Biology Curators Group and the Museums Association. Three speakers, Dr Colin Harrison of the British Museum (Natural History) at Tring; Dr Mike Hounsome, Keeper of Zoology at Manchester Museum; and Peter Morgan, Keeper of Zoology at the National Museum of Wales had agreed to present short papers on the different aspects of the new Act.

In preparation for the Seminar, the Department of the Environment had prepared a short paper for circulation to delegates together with the leaflet A Guide to the Registration of Sellers of Dead Birds (Feb 1982).

Colin Harrison, speaking particularly about ornithological collections drew attention to the fact that under the new legislation there was an onus on museums to show that they were acquiring collections within the law. This assumed that it was possible to identify beyond question, specimens in the collections. Dr Harrison referred to the problems of marking both eggs and skins and to the fact that although several methods had been tried and others suggested, no completely satisfactory method had been found.

Mike Hounsome considered the implications of the Endangered Species (Import and Export) Act of 1976 which had been amended by the new Act. This had arisen from the British Parliament's endorsement of the Washington CITES Convention of 1973. For those museums which were involved in borrowing specimens from abroad or lending to other countries, it was necessary to obtain individual licences for each lot or for the museum to become registered for this purpose. This would involve checking to see whether any specimens in the projected loan were of the species listed in the Schedules attached to the Act. Museums were also becoming involved in advising Customs Departments on the correct identification of items seized. In some cases items which had been confiscated were subsequently offered to museums.

Peter Morgan considered some of the broader issues and pointed out that whilst it was important for natural history curators in museums to understand the implications of the Act it was also important that museums holding natural history collections but without natural history staff should be made aware of the implications. He suggested that museums should welcome the Act and referring to Peter Raven's address to the ICOM General Conference in Mexico he suggested that museums should be more active in environmental conservation and should work closely with the Nature Conservancy Council and other conservation agencies. He raised several questions on which he felt natural history curators needed guidance. Should museums inform when members of the public have been found to break the law? In what circumstances should museums accept collections knowing that the law has been broken?

The afternoon session was largely devoted to discussion with a short contribution from the Taxidermists Guild. A fuller account of the Seminar will be published at a later date but in the meantime museums with natural history collections should note that Part 1 of the Act is likely to come into force in June 1982. From that date (if it is not already standard practice) museums should be able to show that all specimens added to the collections have been acquired within the law. They should know when a licence is needed and how to obtain one. They should identify any specimens in the collections affected by the Act and should make sure that if they purchase any specimens, the vendor is licensed.

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Honorary Secretary. BCG.  
c/o Department of Museum Studies  
105 Princess Road East  
Leicester LE1 7LG  
18th May 1982

## Wildlife and Countryside Act , 1981 - Invertebrates

The evolution of this Act has been complex and the events during its final stages confusing. Royal Assent has now been given. The statement below outlines the implications of the Act for entomologists and other invertebrate zoologists.

### Species legislation

Earlier legislation affecting invertebrate species was embodied in the Wild Creatures and Wild Plants Act, 1975, which, together with various other previous legislation, has become absorbed within the new Act.

It is necessary to recall that the late Lord Cranbrook had tried to promote a Private Members Bill which entailed the definition of endangered and vulnerable categories. For the latter some collecting would be allowed but the legislative framework was unworkable. In the process he put up a list of about 150 Lepidoptera, which inevitably raised considerable consternation. Through the Joint Committee for the Conservation of British Insects, a list with a broader range of invertebrates was put forward in response, thus reducing the emphasis on Lepidoptera and including some less controversial rare species in groups which were not subject to collecting, but there was some scepticism that the Bill would ever get through.

When the Conservatives came to power they announced that there would be a government Bill. The Department of the Environment (without prior consultation with NCC) produced consultation papers to a wide spectrum of bodies but ignoring most of the invertebrate societies though invertebrates were included. NCC circulated these papers to the societies. The revised Cranbrook list of species had been adopted, the government having given assurance that it would include the list that he had drawn up.

Jumping a number of moves, the essence is that the distinction between endangered and vulnerable categories was lost, so all listed species would be subject to complete protection. A list of species was given endorsement by the Societies, albeit that some had hesitation on certain species. Among the qualifications was the need to adopt area listing, as opposed to GB listing with certain butterflies. The perspective kept shifting during the passage of the Bill. It became increasingly clear that adjustment in stance was required. Area listing was swept out since this did not suit those promoting otter conservation. As precedents for future species to go on the Act, there was concern that the snails should come out altogether but efforts to get an airing on these got stymied in the procedures of the Report stage. Among the 1,000 amendments were additional invertebrates for inclusion on the schedule where no consultation was possible. Purple Emperor was put up and NCC advised against so that one was out but the Swallowtail went in unexpectedly when NCC only had 20 minutes to react at a time when the staff who ought to have advised were not available. The New Forest Burnet sneaked in (at least a more sensible one) and NCC put in the spider Eresus niger with full backing from the British Arachnological Society. However, everyone concerned is now well aware of the difficulties in exercising influence over the Committee stages of a Bill, the more so when Parliament lacks people who are fully conversant with the special considerations affecting invertebrates.

The position in the Act is as follows:-

The previous Conservation of Wild Creatures and Wild Plants Act 1975 already prohibited the collecting of the Large Blue butterfly, Maculinea arion, and the Essex Emerald moth, Thetidia smaragdaria (the latter was added in 1979). After a complex series of manoeuvres, a further 17 invertebrates have been added:- 3 butterflies - Chequered Skipper (Carterocephalus palaemon), Heath Fritillary (Mellicta athalia) and Swallowtail (Papilio machaon); 4 moths - Reddish Buff

Moth (Acosmetia caliginosa), Black-veined Moth (Siona lineata), Barberry Carpet (Pareulype berberata), New Forest Burnet (Zygaena viciae); 3 Orthoptera - Field Cricket (Gryllus campestris), Mole Cricket (Gryllotalpa gryllotalpa) and Wart-biter (Decticus verrucivorus); 1 beetle - Chrysolina cerealis; 1 dragonfly - Aeshna isosceles; 2 spiders - Eresus niger and Dolomedes plantarius and 3 snails - Monacha cartusiana, Myxas glutinosa and Catinella arenaria.

NCC has a statutory duty to revise the list at five year intervals, though there are procedures for adding or removing species at any time. If there is strong feeling that any species should come off, then it is a tactical question whether this will be easiest to raise now as a special case before the list becomes entrenched or in five years time<sup>when</sup> the procedure will seem less like special pleading. In some quarters the removal of butterflies, for instance, will be emotive with the challenge that entomologists only want them off the list so they can collect them, which proves that the list should not be altered. Thus any views should be entirely factual and based on the advice that would have been given had consultation procedures permitted comment before the Act went through in its present form.

The views of Societies on this list would be welcome. It seems unfair that the perspective has changed so much since views were last put forward. A new cool look is required. Any case for changes has not only to convince NCC (as government advisors), it has also to convince the Secretary of State for the Environment (currently Mr Heseltine).

In order to assist your deliberations, I offer some comments on the list which may help concentrate thoughts on the points which require consideration.

#### Butterflies

The Large Blue has to stay. No sighting accepted as authentic since 1979.

The Heath Fritillary was originally put forward for listing in the SW only - it is in serious trouble here being down to only two colonies (according to current information available to NCC). If we cannot have area listing, then there is a strong case for its staying on the Act, at least until a research programme (due to start in April<sup>1992</sup>) clarifies the status and conservation prospects.

The Chequered Skipper was earlier agreed for listing as England only (not positively seen since 1975). With the passage of time, it seems more realistic to judge this one on its current Scottish status and vulnerability to collecting.

The Swallowtail was sneaked on apparently because it is pretty and MPs have heard of it. There are views both within NCC and outside that this butterfly is largely holding its own and collecting within its habitat is not likely to make serious impact. There are, however, other views that as a spectacular butterfly, it is a good flag-waver for attracting public interest in insects - in other words, now it's on, leave it on.

#### Moths

Species with small populations on single sites are Essex Emerald (there is unsubstantiated rumour of a small second colony but this hardly alters its critical status), Barberry Carpet, Reddish Buff and New Forest Burnet. It would have to be a very well argued case to get any of these off and my current view is that they deserve to stay put.

#### Orthoptera and Odonata

These are unlikely to cause controversy. The mole cricket is desperately difficult to find but all four are appropriate species in groups which are not, and should not be, subject to pure collecting.



## Beetles

The so called rainbow leaf-beetle (Parliament has to have a common name for everything) is a rare colonial species in Snowdonia. The populations are small and ought not to be collected.

## Spiders

Both are spectacular single site species. Since the British Arachnological Society has given full support, these species are not controversial.

## Snails

There would be strong grounds for taking all three off. The sandbowl snail can only be identified by dissection and its main GB population is on an NNR where it is abundant. This is not a satisfactory precedent for candidate species. The Conchological Society has earlier expressed reservations. I tried to get all three off but in the chaos of parliamentary procedures, the issue was not resolved.

I have made enquiries on circumstances affecting entomologists, the following being my current understanding. The above species will be subject to complete prohibition against collecting, with fines up to £1000 per specimen (ie. even an egg). Specimens and rearing stock obtained before that date are in the clear, but the onus of proof is on the individual (the reverse of the normal legal position). Stock released onto a site (even where that species is not native) then becomes 'wild', so is equally subject to these provisions. To disturb these species is also illegal, but it is possible to capture or pick up a specimen in order to identify it providing one has just cause (ie. it is not necessary to capture a swallow-tail in order to identify it but with some moths this may be necessary). To 'take' a specimen from its immediate location is strictly illegal. These provisions apply to listed animals in general, so invertebrates do not have any special concessions. NCC is able to issue licences for the handling or taking of specimens, in practice applying to studies or conservation measures which assist the future of the species concerned.

Circumstances would arise where someone unwittingly took a protected species without realising the identification. Should this happen (the Reddish Buff Moth for instance is not terribly distinctive among the noctuid moths) then the best thing is to report the circumstances to NCC (via me) otherwise there may be the embarrassment of having an important new locality and being afraid to come out with the fact. However, it is reasonable to expect people to be aware of the identification of protected species and any specimen taken would be directed to a museum (or Society) collection so that no one can take advantage to acquire specimens for his own collection. Killer traps ought not to be used where it is known that protected species may be caught but there could be circumstances where unforeseen embarrassment arises. Again, it is best to come clean. This sort of legislation is not designed to trip up the innocent and sensible entomologist but it is there as a stand-by to deter and if necessary to punish selfish and irresponsible actions.

The new Act continues the 1975 provisions prohibiting trade of any type (including barter) in specimens of protected species - its not worth risking fines of £1000 per specimen.

It is now illegal to release or allow to escape into the wild any animal (includes invertebrates) of a 'kind' which is not resident in Britain or is not a regular visitor in a wild state. The word 'kind' was carefully chosen and will be interpreted as any genetic population derived from outside Britain. Thus to release species into Britain or to release foreign stock of a British species is unlawful.

It is worth a reminder that uprooting of wild plants is an offence unless the landowner has given permission. The list of totally protected plants, where even to pick a piece is unlawful, has been extended to 61 species (all of which are rarities).

One problem with all embracing legislation is its indirect pitfalls - literally. If one puts down pitfall traps (for say spiders or beetles) and you trap protected sand lizards, move those traps quick. All trapping of protected species is banned, a nice catch 22 situation since you might not know a protected species is there until you have trapped it. Anyway, the general philosophy of common sense and avoiding awkward circumstances which could reasonably be anticipated is all one can recommend.

Under normal circumstances (after the framework of legislation has been decided by parliament) it is NCC who advises on the species lists in such an Act. Thus species can be added or subtracted providing the Secretary of State for the Environment agrees to an order being placed before the House. It is clear that some tidying up of the species lists is required in order to straighten out some of the anomalies that have arisen.

I am as anxious as anyone to try to finish up with a sensible list which carries the support of the Societies as far as is possible. There is widespread apprehension that we are going down the slippery slope towards a ban on all collecting, or at least sufficient ban to make field work intolerable. NCC certainly does not support the concept of all embracing bans - administratively it is impractical anyway. More important it is recognised that collecting is a necessary part of field work for most invertebrate groups. The help that increasing numbers of entomologists are giving with the Invertebrate Site Register, as well as BRC schemes etc., is a very powerful reason why NCC should continue to resist unnecessary extension of species legislation. I hold the view that the best insurance entomologists have is by working with the conservation bodies, as with the Invertebrate Site Register, so that there is developed a proper level of understanding and co-operation. The synonymy in many minds between the entomologist and the kleptomaniac collector is best quashed in a practical way. At the same time it should be recognised that legislative lists, if properly chosen, can be of value as a deterrent for the unscrupulous collector.

#### HABITATS

Whilst the species side of things may be a mixed bag, on the habitat aspects of the Act things have worked out extremely well.

It is recognised that habitat conservation is the key issue, a truth which the government did not sufficiently recognise to start with. There were more letters to Westminster on this Bill than just about any other issue in modern times and there were concerted lobbying and delaying tactics which eventually led the government to change its position at the last minute. Whilst the Act covers a great range of countryside issues, much of the furore was over the future of Sites of Special Scientific Interest. SSSIs could not effectively resist pressures from modern agriculture and forestry. Nationally about 10-12% were damaged or destroyed in 1980, the figure for Dorset being 32%. The implications sank home and incredibly we have finished up with measures which are potentially stronger than on many NNR leas<sup>es</sup>.

NCC now has the legal requirement to inform all owners and occupiers of SSSIs of the scientific content of their land and to define what activities will require consultation. Should an owner wish to pursue damaging activities, he must give written notice. NCC has three months to decide on possible safeguard action; beyond this period an Order by the Secretary of State would be required if voluntary negotiation was unlikely to succeed. This would allow a further nine months for negotiation and the possibility of compulsory purchase as a last resort. The very last twist to the Bill made it compulsory for NCC to offer compensation to an owner or occupier if agricultural (probably forestry as well) grant is refused on nature conservation grounds (instead of grants to growing barley, farmers will be compensated for growing wildlife). The financial implications could be enormous, though the National Farmers Union (who were taking stance with NCC) and the Country Landowners Association are asking farmers to behave responsibly (otherwise more stringent measures may be forthcoming). Whether government will meet the financial needs remains to be seen, but it

is hardly likely that they can abandon SSSIs after totally committing themselves to the semi-voluntary process. What it amounts to is that all SSSI are virtually on the same plane of safeguard as NNRs except that NCC will not normally warden or manage them direct.

Whilst naturalists have rightly had a jaundiced view of SSSIs in the past, the status of an SSSI has now changed almost beyond recognition. It must also be recognised that the Act does nothing to reduce the rate of loss of non-SSSIs and provides no formal opportunity to influence management on otherwise safe land.

This places the future of invertebrate conservation very much into the hands of entomologists. Through the Invertebrate Site Register, the important sites and the management needs of those sites must be identified. It is then possible to confer on them a degree of safeguard far beyond anything possible before. Even on 'safe' pieces of ground it is possible to exert a considerable influence over future management. By means of SSSI prescriptions NCC can define in some detail the management activities which need to be discussed with NCC and for the legal machinery to go into action if necessary to ensure the wildlife interest is not damaged. It is now not simply a question of preventing a grassland being destroyed, it is now possible to avoid damaging grazing regimes. NCC has to advise all SSSI owners and occupiers of the necessary prescriptions by the end of 1982, which means information is needed urgently on the invertebrate faunas so that the wrong management prescriptions are not given (eg. what suits the botanical interest may not suit the invertebrate fauna). It will be much more difficult to change the prescriptions in the future, though clearly as new information comes forward this hurdle will have to be met. Also there may be new SSSIs which deserve designation for their invertebrate interest. In the meantime, heavy use is being made of the existing information in the Invertebrate Site Register (which is far from complete because many people have still not responded) and the general management prescriptions for all habitats will take account of general guidelines on invertebrate needs.

#### SOME OTHER POINTS

At long last, water authorities and drainage boards have a statutory duty to consult NCC over activities affecting SSSIs. It is to be hoped that they will also heed that advice.

Also, marine conservation, including marine reserves, is now officially within NCC remit.

The Act includes a vast array of other measures on a wide range of amenity issues including footpaths. It is still unclear what all the ins and outs are but no doubt there will be news on interpretations by bodies in this field. If anything of concern to entomologists emerges, I will at least consult the JCCBI.

#### CONCLUSION

This will be rather a lot to digest. As I write I have only just seen the final published Act and I have no doubt it will be several months before all the detail is absorbed and the implications from a whole variety of angles emerge.

However, it is clear that there is a great deal of benefit in the Act, particularly as regards habitat safeguard. It is now a question of maximising on these advantages. By comparison the disadvantages almost pale into insignificance, though they are real enough in some viewpoints, but there is a good chance of ironing out the more serious defects.

Advice and comments are welcome, preferably via the Societies in order to achieve some distillation of views.

Alan Stubbs  
Chief Scientist's Team  
Nature Conservancy Council

18 December 1981





## NATURE CONSERVANCY COUNCIL

19-20 Belgrave Square

London

SW1X 8PY

Telephone 01-235 3241

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Your reference

Our reference

Date

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### DISTURBANCE OF WILDLIFE : LICENSING

#### Wildlife and Countryside Act 1981

This Act received the Royal Assent on 30 October 1981, and its licensing provisions, which supersede those of the Protection of Birds Acts 1954-1967 and the Conservation of Wild Creatures and Wild Plants Act 1975, are expected to come into force early in 1982. It will then be unlawful to disturb certain wild birds and other animals unless a licence has been obtained.

#### Disturbance of wild birds during the nesting season

The Act makes it an offence, unless a licence has been granted, to intentionally disturb any wild bird included in Schedule 1 to the Act while it is building a nest or is in, on or near a nest containing eggs or young; and it will also be an offence to disturb the dependent young of such a bird in any circumstances.

The Nature Conservancy Council can grant licences to disturb Schedule 1 birds or their young, for any of the following purposes -

- (i) scientific or educational purposes
- (ii) the purpose of conserving wild birds
- (iii) the purposes of photography

A list of Schedule 1 birds is attached. If you wish to visit the nests of any of these birds during the forthcoming breeding season, for any of the purposes just mentioned, an application form for a licence can be obtained from the Licensing Section at the above address.

You may find it helpful to read the next four sections before filling in your application form.

#### Applications to examine the nests of Schedule 1 Birds

As explained, NCC may only grant licences to examine Schedule 1 birds' nests if the purpose is scientific or educational, or connected with the conservation of wild birds. It is important therefore to make quite clear your reasons for wishing to visit the nests. Normally licences will be granted only to those engaged in research, surveys of recognised scientific or conservation value, or protection schemes.

## Applications to Photograph Schedule 1 Birds at the Nest

As you may know, nest desertions can very easily be caused by well-meaning but inexperienced photographers, so it is felt reasonable that anyone applying for the first time should have had a good deal of experience on the commoner birds. Certain species (shown on the attached list) are considered too rare or too vulnerable for any photography at the nest to be permitted, and for the rest only a limited number of licences will be available, with geographical restrictions in some cases. Preference will be given to photographers with a proven record of expertise.

Please note that a licence is not required to photograph any bird not on Schedule 1, and even Schedule 1 birds (though not their dependent young) may be photographed away from the nest without a licence.

## Nest Record Scheme

This scheme, administered by the British Trust for Ornithology (BTO) collects data on the breeding biology of birds which is extremely valuable for assessing conservation needs. Contributors record on specially-printed cards information about the nests they visit (eg clutch size, brood size, fledgling success, predation) and send the cards to the BTO who can then analyse the accumulated data on computer. While disturbance of Schedule 1 birds must be kept to a minimum, it is important that those who are licensed to visit their nests, for whatever reason, should not miss the opportunity of contributing to the scheme. Records referring to scarce species are of course treated as strictly confidential. Please apply for further information to the Nest Records Officer, British Trust for Ornithology, Beech Grove, Station Road, Tring, Herts HP23 5NR.

## Issue of Licences

We hope that the date when the Wildlife and Countryside provisions are to come into force will be announced shortly. Until that date, it may be necessary to issue the old-style Approvals under Section 4(3) of the Protection of Birds Act 1967 to those who will be visiting Schedule 1 birds' nests in the early part of the year. Transitional arrangements will be made, if required, to ensure Approval-holders are licensed under the new legislation when it comes into force.

Please note that until the new legislation is in force, the Sparrowhawk is still specially protected under the Protection of Birds Acts. If you wish to disturb this species during the 1982 nesting season, please say so on your application form.

## Disturbance of other wildlife

The Wildlife and Countryside Act introduces some new protection for certain animals other than birds, and if you wish to photograph these animals or examine their places of shelter you may in future need a licence.

The animals concerned are listed in Schedule 5 to the Act, a copy of which is attached. In addition to prohibitions on killing, injuring, catching, handling and keeping in captivity these animals, under the Act it is unlawful to intentionally -

- (i) damage, destroy or obstruct access to any structure or place used by a Schedule 5 animal for shelter or protection
- (ii) disturb a Schedule 5 animal while it is occupying such a structure or place.

You will see from the list that some of these species cannot normally be said to use any "structure or place" for these purposes. But for those which do - like the otter, and any species of bat - the NCC can license disturbance for any of the following purposes:-

- (i) scientific or educational purposes
- (ii) the purpose of conserving wild animals
- (iii) the purposes of photography.

An application form can be obtained from the Licensing Section. If you are uncertain whether you need a licence, write to the Licensing Section explaining exactly what you wish to do, and they will advise you.

1 December 1981

WILDLIFE AND COUNTRYSIDE ACT 1981

Schedule 5

Animals (other than Birds) which are protected

Bats, Horseshoe (all species)  
Bats, Typical (all species)  
Beetle, Rainbow Leaf  
Burbot  
Butterfly, Chequered Skipper  
Butterfly, Heath Fritillary  
Butterfly, Large Blue  
Butterfly, Swallowtail  
Cricket, Field  
Cricket, Mole  
Dolphin, Bottle-nosed  
Dolphin, Common  
Dragonfly, Norfolk Aeshna  
Grasshopper, Wart-biter  
Lizard, Sand  
Moth, Barberry Carpet  
Moth, Black-veined  
Moth, Essex Emerald  
Moth, New Forest Burnet  
Moth, Reddish Buff  
Newt, Great Crested (Warty Newt)  
Otter, Common  
Porpoise, Harbour (Common Porpoise)  
Snail, Carthusian  
Snail, Glutinous  
Snail, Sandbowl  
Snake, Smooth  
Spider, Fen Raft  
Spider, Ladybird  
Squirrel, Red  
Toad, Natterjack

Note: This list does not include those Schedule 5 Animals which are protected in respect of sale and related activities only.



## WILDLIFE AND COUNTRYSIDE ACT 1981

Schedule 1

## Part I: Protected by Special Penalties at all times

- |                          |                         |                           |
|--------------------------|-------------------------|---------------------------|
| * Avocet                 | * Grebe, Black-necked   | * Sandpiper, Purple       |
| * Bee-eater              | * Grebe, Slavonian      | * Sandpiper, Wood         |
| * Bittern                | Greenshank              | * Scaup                   |
| * Bittern, Little        | * Gull, Little          | * Scoter, Common          |
| * Bluethroat             | * Gull, Mediterranean   | * Scoter, Velvet          |
| * Brambling              | Harrier (all species)   | * Serin                   |
| Bunting, Cirl            | * Heron, Purple         | * Shorelark               |
| * Bunting, Lapland       | * Hobby                 | * Shrike, Red-backed      |
| * Bunting, Snow          | * Hoopoe                | * Spoonbill               |
| * Buzzard, Honey         | Kingfisher              | * Stilt, Black-winged     |
| Chough                   | * Kite, Red             | * Stint, Temminck's       |
| * Corncrake              | Merlin                  | Swan, Bewick's            |
| * Crake, Spotted         | * Oriole, Golden        | * Swan, Whooper           |
| Crossbills (all species) | * Osprey                | * Tern, Black             |
| Curlew, Stone            | Owl, Barn               | Tern, Little              |
| * Diver, Black-throated  | * Owl, Snowy            | * Tern, Roseate           |
| * Diver, Great Northern  | Peregrine               | Tit, Bearded              |
| Diver, Red-throated      | Petrel, Leach's         | Tit, Crested              |
| Dotterel                 | * Phalarope, Red-necked | * Treecreeper, Short-toed |
| * Duck, Long-tailed      | * Plover, Kentish       | Warbler, Cetti's          |
| Eagle, Golden            | Plover, Little Ringed   | Warbler, Dartford         |
| * Eagle, White-tailed    | Quail, Common           | Warbler, Marsh            |
| * Falcon, Gyr            | Redstart, Black         | * Warbler, Savi's         |
| * Fieldfare              | * Redwing               | * Whimbrel                |
| * Firecrest              | * Rosefinch, Scarlet    | Woodlark                  |
| Garganey                 | * Ruff                  | * Wryneck                 |
| * Godwit, Black-tailed   | * Sandpiper, Green      |                           |
| * Goshawk                |                         |                           |

## Part II : Protected by Special Penalties during the Close Season

- \* Goldeneye
- Goose, Greylag (in Outer Hebrides, Caithness, Sutherland and Wester Ross only)
- \* Pintail

## PROTECTION OF BIRDS ACTS 1954-1967

Schedule 1

Sparrowhawk (not specially protected under the Wildlife and Countryside Act).

- \* The NCC does not propose to license photography of these species during the 1982 nesting season.

IMPORTANT These new licensing provisions will not come into operation until Part I of the Act is brought into force by Statutory Instrument, probably in June or July 1982. (No date is fixed yet as of 20 May 1982). Once Part I has come into force the N.C.C. is to publish various guides to the Act.

NATURE CONSERVANCY COUNCIL

WILDLIFE AND COUNTRYSIDE ACT 1981

Licences to kill, take or have in possession any wild animal included in Schedule 5 to the above Act, or to have in possession any part or derivative of such an animal

APPLICATION FORM

BLOCK LETTERS PLEASE

Surname.....Forenames.....(Dr/Mr/Mrs/Miss)

Address.....

Organisation (if applicable).....Age (if under 18).....

1. I hereby apply to the Nature Conservancy Council for a licence to (delete whichever do not apply) -

(a) kill/take/have in possession the following wild animals at the following location/address:-

<u>Species</u>	<u>Sex</u>	<u>Life-stage</u>	<u>Number</u>	<u>Location/Address</u>
----------------	------------	-------------------	---------------	-------------------------

(b) have in possession the following parts or derivatives of wild animals at the following address:-

<u>Species</u>	<u>Parts/Derivatives</u>	<u>Number/Amount</u>	<u>Address</u>
----------------	--------------------------	----------------------	----------------

(c) for (i) scientific or educational purposes )  
(ii) the purpose of ringing or marking, or )  
examining any ring or mark )  
(iii) the purpose of conserving wild animals ) delete whichever do  
or introducing them to particular areas ) not apply  
(iv) the purpose of protecting any zoological )  
collection )

2. If a licence to have in possession only is applied for, please state how and when the wild animals, or parts or derivatives thereof, came into your possession.

3. Please explain the need to carry out the proposed activity (continue on a separate sheet if necessary)

4. Please specify, as applicable,

(a) the dates on which the wild animals would be taken/killed

(b) the proposed method of killing/capture, with details of any equipment which would be used

(c) the type of rings or marks which would be used, where they would be obtained, and the proposed method of ringing or marking

(d) if the animals would be kept in captivity, under what conditions and for how long

(e) if the animals would be returned to the wild, the proposed date and place of release, and any steps which would be taken to re-accustom them to the wild

(f) if the animals would not be returned to the wild, how they would be disposed of. Please give the name and address of any collection in which it is proposed to place them.

5. Please give details of your qualifications, including your experience in handling the species concerned and in using any equipment specified at 4(b) above.

6. Please give the names and addresses of two referees. These should be familiar with your work and able to advise on your suitability to receive a licence.

(i) .....	(ii).....
.....	.....
.....	.....
.....	.....
.....	.....

(BLOCK LETTERS PLEASE)

7. I hereby agree to comply with any conditions of a licence which may be granted in respect of this application, and if a licence is granted to send to the Nature Conservancy Council a written report on the licensed activity within one month after expiry of the licence.

Date..... Signature.....

This form should be returned with a stamped addressed envelope to:-

Licensing Section  
Nature Conservancy Council  
19/20 Belgrave Square  
London SW1X 8PY



## Entomology Fieldwork 1984?!

Could the tightening of the present conservation laws result in a strict licencing system for collecting insects? Every field-entomologist will carry a licence card bearing a photograph, name, registration number note of the categories of equipment which the person is licenced to use. For example, no-one under the age of 18 will be allowed to use a pooter over 50 cc volume.

A space will be provided on the licence for endorsements! Some of the more serious crimes are:-

pooting without due care and attention after dark in a built-up area;

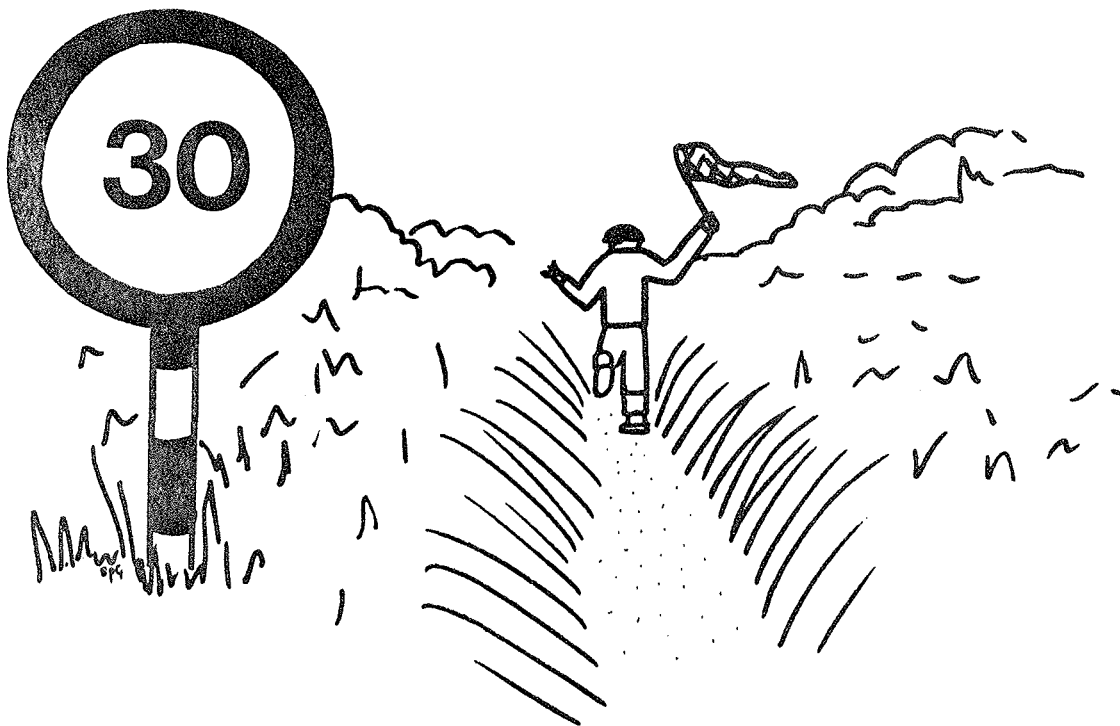
failing to report a new county record;

failing to provide a statement to the police after exceeding the speed limit with a sweep net (a "sweeping statement");

having more than the permitted maximum of naphthalene in your store boxes;

refusing to show an interesting insect to a police officer (failure to give a specimen).

Prosecutions could result in prison terms where one would be subjected to hard labour - usually setting microlepidoptera. Minor offences are punishable by confiscation of nets and pooters or reducing the magnification of the offender's microscope. This may, in extreme cases, result in people turning to botany or even ornithology - shame!



LONDON MAN IN COURT FOR THEFT AND ATTEMPTED THEFT OF EGGS  
FROM 23 MUSEUMS

Museums staff must often find themselves in the difficult situation of, on the one hand, wanting to assist apparently well-intentioned students through the provision of study material, while, on the other, trying to obtain some guarantee that the museum will not be the loser as a result.

Often it is no simple matter to carry out a check on an enquirer's credentials but, sadly, such caution has become more and more necessary. No greater proof of this will be found than in the events which culminated in a 30 year old London man recently receiving a suspended two year prison sentence; he admitted the theft of eggs from seven museums and the attempted theft from sixteen others.

The case also underlined the dilemma often confronting the police in the early stages of such an enquiry, taking place as it did in several police force areas but, initially at least, failing to meet the criteria necessary for the involvement of an appropriate police department. The same case though demonstrated how the RSPB's investigations section is able to make good any initial shortcomings in the police system by utilising knowledge and expertise more normally restricted to its "wildlife" enforcement work.

The story began on 28 January 1981 when a man calling himself "Alan Carter" visited the Pasmore Edwards Museum in East London. He claimed to be writing an article for an American conservation magazine and requested the loan of seabird eggs as supporting material. The man's unusual request gave rise to enough suspicion for it to be refused and for a report to be made to the local police (Metropolitan Police). Fortunately the museum also informed the RSPB.

On 4 February a man calling himself "Peter Unwin" visited University College, London, seeking to borrow eggs on behalf of a third person. The loan was refused pending further enquiries. Unfortunately the man later returned to the museum, telling a different member of staff he had called to collect eggs in accordance with an agreement made earlier that same day. He was given three guillemot eggs and one jungle-fowl egg. This information too was subsequently passed to the local police station (Metropolitan Police) who in turn passed the information to the divisional collator at East Ham Police Station.

On 5 February a "Professor Edwards" telephoned the British Museum, Tring, asking for the loan of one black vulture egg. Once again the request aroused sufficient doubt for it to be refused. "Edwards" also telephoned Brighton's Booth Museum the same day seeking the loan of a golden eagle egg. As far as we know neither of these incidents were reported at the time.

About this same time a mysterious caller telephoned the RSPB's headquarters at Sandy seeking permission to view any egg collections that might be held there; this too was refused. Regrettably the full significance of that request was not

apparent at the time, otherwise steps would have been taken to accommodate the caller! However, enough information had filtered through to Sandy by 9 February to make it clear that one or more as yet unidentified people were in the process of attempting to extract eggs from museums by means of fraud. On that day I wrote to a number of the big city museums in Britain outlining the facts as we then knew them. The letter stressed that any museum contacted by a suspect should seek guidance from the RSPB Investigations before giving a final answer. Similar letters were sent to the national museums of several western European countries. All letters were sent by first class post or by airmail.

The next museum to be contacted was York on Friday, 24 February, this time the man used the name "John Henderson" of "Chevron Oil". He requested eggs for use in a seminar and was sent a package by British Rail Red Star for collection at King's Cross station; these were one each of golden eagle, osprey, black-throated diver, gannet, guillemot and razorbill. When nothing was heard from Henderson the suspected theft was reported to York CID (North Yorkshire Police). The report reached the RSPB a day or so later, at which time it was learned that a similar approach to the Hancock Museum at Newcastle had been unsuccessful.

It was the turn of Edinburgh's Royal Scottish Museum on 3 March. This time our man claimed to be a "Simon Wilson" of Anglia TV". Two eggs each of golden eagle and white-tailed eagle were sent Red Star to King's Cross. The Edinburgh incident showed for the first time the considerable thought that the perpetrator was putting into his activities. After speaking with the museum he telephoned Anglia TV, claimed to be a representative of the Royal Scottish Museum and asked that the museum be sent a booklet on the history of the company. When these arrived at Edinburgh, they gave (for a time) the impression that all was well.

At 1pm on 4 March a "Michael Fisher" telephoned a Leicester museum on behalf of an oil company. He called back at 4pm and was told that his request was refused; the RSPB was not contacted at the time! On 10 March, "Timothy Brown" of "Anglia TV" tried unsuccessfully to get eggs from Bolton Museum but 2 days later came an approach that was to give us the first real lead. On that day a "Mr Turner", supposedly of "Texaco Oil", telephoned the Gilbert White Museum at Selbourne. Agreement was reached for the loan of eight eggs including osprey, chough and black-throated diver, but, as the curator's father worked in London, the eggs were brought up by him and later handed over to "Turner" by his secretary. The secretary was later able to give me an accurate description of our man - short, well spoken, dark haired and with a distinctive drooping moustache!

At about this same time a contact in Spain's equivalent to the RSPB forwarded to Sandy a letter received by the museum in Madrid. It had been written on 5 February from an address in East London and requested the loan of one black vulture's egg for research purposes. Two things about the letter interested us particularly. Firstly, it bore upon it the writer's name and address. Secondly, it was dated 5 February, the very day of course that "Professor Edwards" had telephoned the British Museum in search of a black vulture egg! The writer of the

letter claimed to be something of an expert on "Buitre negro" and in the process of preparing an authoritative book on the species.

A simple check of the voters' list confirmed that such a person did live at the address given in Chingford, but exhaustive checks within the ornithological world failed to find anyone that knew of him!

Now that we had something to work on we set about establishing exactly which museums had been contacted. RSPB investigations officer Graham Elliott was given the wearisome task of contacting all likely museums, running up a considerable telephone bill in the process. Special forms were hurriedly prepared and details of each incident were recorded on the rapidly expanding file. Tedious though the job may have been it proved worthwhile for it was discovered that, apart from those already mentioned, our man had approached Bristol, Cambridge, Darlington, Dundee, Glasgow, Inverness, Norwich, Oxford, Portsmouth, Reading and Swansea. Of these Darlington, Glasgow, Inverness and Reading had provided eggs, sending them by British Rail Red Star to London.

While Graham was dealing with this I spent a few early mornings watching the home of our suspect. I managed to obtain one brief glimpse of the occupier and established that he bore some resemblance to the person previously described by the secretary.

Feeling that we might now be getting somewhere with our enquiry we held an office meeting to discuss our next move. Any offences were clearly outside our remit, falling squarely within the 1968 Theft Act, a police matter. Our problem was, which police! I had a feeling that we now knew enough for an approach to the police but I also felt that the local (to our suspect) uniformed people were not the right choice. Instead I opted for the Regional Crime Squad, whose method of operation I knew enabled them to move more easily across other police force boundaries.

I met with Sergeant Dick Keating at his East London office and gained his agreement for us to continue with the enquiry, to visit the main London railway stations and to obtain photocopies of the receipt portion of the Red Star parcels labels (these bear upon them the signature of the recipient). I was accompanied in this by RSPB Investigations Collator Penny Tedder and we spent a tiring but nevertheless rewarding day working through several hundred labels. Back at the office next day we compared the signatures with that on our suspect's letter. The label from Darlington in the name of "Paul Fenna-Roberts" proved the most interesting with the "P" of the first name bearing a remarkable resemblance to the capital letter of the suspect's name, "Peter".

Armed with this new information I went back to Sergeant Keating; seeing the similarities in the handwriting he agreed to make his own enquiries. A week or two later officers from the Regional Crime Squad visited the suspect armed with a search warrant and found the missing eggs in the house. As a result he was arrested and taken to the local police station where he made a full

statement admitting the offences. In August he appeared before Waltham Forest Magistrates who committed him for trial at Snaresbrook Crown Court, where he appeared in January 1982.

As I suggested at the beginning, museums are in a difficult position. To refuse all requests for access to their material would be unreasonable and, I suspect, would run counter to one of their main objectives. What they clearly must do is benefit from the misfortune of those of their colleagues who were deceived into supplying eggs in the above case. In the majority of instances a request for the name and telephone number of a superior able to verify the man's story would have rendered his deceit useless. If it is suspected that the museum has been the unfortunate victim of a deception the matter should be reported to the police as soon as possible; the RSPB would be most grateful if at the same time we could be acquainted with the facts and given the name of the police officer in charge of the investigation.

One final point. The RSPB's work in the field of rare bird protection has established beyond doubt the value of "security marking" eggs as an aid to their subsequent identification. The technique involved is simple, inexpensive and could equally be applied to museum specimens, either as individuals for loan or to collections in entirety. We will gladly provide more information to anyone interested. It will not prevent theft but it will guarantee identification should the missing item be encountered later.

Summary: The case reported here highlights a substantial breakdown of museum security but in defence of various individuals the thefts were carried out in a most professional and determined manner. The culprit would have been quite easily apprehended had the RSPB Investigations staff been informed of any approach to a museum while it was in progress; a parcel could have been sent by rail and the receiver arrested by the Metropolitan Police. As it was the person responsible became suspicious and ceased activity. Had he not written to a Spanish museum he might never have been apprehended!

P. J. Robinson  
Senior Investigations Officer,  
R.S.P.B.,  
The Lodge,  
Sandy,  
Bedfordshire SG19 2DL

7 April 1982



## Type and Figured Specimens Register - Pilot Study

The feasibility of attempting to produce a register of Type and Figured specimens utilising the network of Collection Research Units is the subject of this pilot study.

The North West CRU members provided information, that was readily available, from as wide a range of plants, animals and fossils as possible and from as many different institutions that were accessible in the relatively short period during which data was gathered. A total of 1358 taxa from eight institutions (botany 294; geology 267; zoology 857) were provided in varying forms of documentation. The media and format ranged from typescript, computer printout, record sheets, file cards, MDA cards, photocopies of published catalogues and original descriptions to manuscripts. Despite this it would appear to be a relatively simple job to extract the necessary information for inclusion in the register.

It is restressed, as was noted in the FENSCORE Type Specimen Register Working Party reports, that it will only be necessary in the published form of the register to include the name of the taxon, author, date; status of the specimen(s); the number and form of specimens; the holding institution and accession number. All the other information necessary to validate the status of the specimen(s) would need to be available in the holding institution, on the computerised database and for refereeing if there was any doubt about the status.

It was decided that at this stage it was not necessary to machine process the above records as they had merely been provided to illustrate the range of material and record formats likely to form the input. A sample batch will be typed out in a simulated register using examples gleaned from foreign hepatics, fossil echinoderms and coleoptera. This would be circulated before the next FENSCORE meeting together with a set of proposals for conducting a full scale attempt at a Type and Figured Specimen Register based on the findings of this pilot study.

This is a summary of the NWCRU meeting of the 17 March 1982. Full minutes (to be approved) and the analysis by discipline of the returns which formed the basis of the pilot study have been produced.

E. G. Hancock,  
Chairman, NWCRU.

# Museum Professionals Group

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date: 2 February 1982

please reply to: Ulster Museum,  
Botanic Gardens,  
BELFAST BT9 5AB.

ref:

E.G. Hancock, B.Sc., A.M.A.,  
Central Museum & Art Gallery,  
Le Mans Crescent,  
BOLTON BL1 1SA.

Dear Sir,

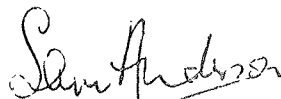
Many of your members have presumably received the circular dated 30th October 1981 from Edwards High Vacuum, Crowley, regarding the possible hazards arising from the use of azides in vacuum systems. It would appear that users of Edwards freeze driers have not been unduly perturbed by this notice, and that users of similar apparatus manufactured by firms other than Edwards High Vacuum are probably unaware of the possible dangers.

Briefly, the danger arises when azides combine with copper, bronze or brass to form unstable, explosive compounds, which can detonate spontaneously, or on impact. The question arises then, do azides occur in the fresh biological material normally processed in museums? I was disturbed when an enquiry put to the Department of Biochemistry of Queen's University, Belfast, produced the answer, yes, they do, notably in marine material.

This information seemed to come as something of a surprise to a spokesman I then contacted at Edwards works. The warning was addressed primarily to workers who introduced additional materials containing azides, apparently as a stabilizing agent, and in these circumstances detonations have occurred. No accidents have been reported in any other circumstances, even from firms who process foodstuffs in bulk for human consumption. Nevertheless, until more information becomes available about the amount of azides, in our specimens, and the levels at which they constitute a hazard, the warning cannot be ignored. The unsatisfactory position in my own institution, the Ulster Museum, is that, having informed the local Health & Safety at Work Inspectorate, and switched off our E.F.2, we must give it a wide berth, and await developments, presumably in the form of more information from Edwards research department. The firm has acted very correctly in this matter, but in spite of offering some reassurance, obviously cannot guarantee that there is no risk until further research has been carried out.

The Executive Committee of M.P.G. feels that the above information should be drawn to the attention of all preparators who may be affected, via the medium of your Newsletter.

Yours sincerely,



S. Anderson (Chairman, M.P.G.)



NOTES FOR  
DIPLOMA STUDENTS



Information sheet

Alcohol: Ethyl alcohol  $C_2H_5OH$  (ethanol or absolute alcohol) with not more than 1% water and approx. 75° over proof (OP)\*. Diluted to 95-90% by volume = "rectified spirit" (approx. 57-66° OP)

Isopropyl alcohol  $CH_3.CH(OH)CH_3$  with not more than 3-4% water

Methylated spirit: ethyl + methyl (methanol) alcohols + acetone (some brands) + methyl acetate + water to give 80-90% strengths

- a) mineralised methylated spirit: 90 vols ethanol + 10 vols methanol + mineral oil(s) (paraffin or pyridine) + colouring. Useless for preserving biological specimens
- b) Industrial methylated spirit (IMS): 95 vols ethanol + 5 vols methanol to give 99-92% strength (74-60 OP); some brands contain pyridine. Diluted to 70-80% standard biological preservative.

\*Proof alcohol = 57% strength at 60°F; by definition 5 vols 90-95% alcohol SPG .838 diluted with 3 vols water.

<u>dilution by vol.</u>	<u>degrees over proof (approximated)</u>
69%	22
74%	31
80%	40
84%	48
90%	57
95%	66
100	75

Formaldehyde: Commercial grades 40%. A 4% solution adequate for most museum specimens i.e. 10ml formaldehyde (40%) + 90ml water; neutralise with borax or hexamine (saturate stock solution).

Propylene Phenoxetol/Glycol: specimens must be adequately fixed before storing in solution no II

Solution I fixative:	propylene phenoxetol	.. ..	1ml
	propylene glycol	.. ..	5ml
	40% formaldehyde	.. ..	10ml
	distilled water	.. ..	84ml
Solution II preservative:	propylene phenoxetol	.. ..	1ml
	propylene glycol	.. ..	10ml
	distilled water	.. ..	89ml

Colour preservation: modification of Kaiserling's tripartite method

Solution I	Formaldehyde (40%)	.. .. .	400ml
	Potassium acetate	.. .. .	50g
	Potassium nitrate	.. .. .	30g
	distilled water	.. .. .	1000ml
Solution II	80-90% alcohol until colour returns		
Solution III	Glycerine	.. ..	3000ml
	Potassium acetate	.. ..	2000g
	distilled water	.. ..	9000ml

Some dates in preservation techniques

Dry preservation	Wet preservation	Osteological <u>in situ</u> preparations
<p>484 BC Herodotus Egyptian embalming methods (see Pettigrew 1834)</p> <p>*1490 Leonardo da Vinci casting brain ventricles and wax casting of heart (see Dobson 1956)</p> <p>1642 Ole Worm's catalogue of Museum, all dried specimens (see Anon 1642)</p> <p>1656 Tradescants catalogue of museum (probably all dried specimens) (see Allan 1964)</p>	<p>1660 Ashmole showed Charles II specimens "in a solution of Dr Warner's invention" (see Gunther 1927)</p> <p>1662 Boyle recorded use of spirits of wine for preserving tissues (see Birch 1746)</p> <p>*1670 Swammerdam mentioned spirits of wine in catalogue to museum</p>	

Dry preservation	Wet preservation	Osteological <u>in situ</u> preparations
<p>1890<sup>†</sup> Altmann described method for freeze drying tissues</p>	<p>1681 Grew mentioned liquid preparations in Royal Society catalogue</p> <p>1710 Ruysch mentioned liquid preps. in his catalogue</p> <p>*1768 Hunter collection - large number of liquid preps. mentioned (see Laskey 1813)</p> <p>1786 Seba - many specimens preserved in "kilduivel" (= killing devil or spirits of wine) (see Engel 1937)</p> <p>1859<sup>†</sup> Butlerov discovered formaldehyde</p> <p>1867<sup>†</sup> von Hofmann demonstrated production of formaldehyde</p> <p>1888<sup>†</sup> Loew discussed antiseptic properties of formaldehyde</p> <p>1893<sup>†</sup> Blum tissue preserving qualities of formaldehyde; colour restoration in alcohol</p> <p>colour preservation 1896<sup>†</sup> Melnikow Raswedenkow introduced salts into final preservative</p> <p>colour preservation 1896<sup>†</sup> Jores added salts to first solution</p>	



1920 Hochstetter  
displayed wax impreg-  
nated specimens

1926 Noble & Jackle  
described wax impreg-  
nation method based  
on Hochstetter's  
technique

1927 Hochstetter  
published his method

Freeze drying  
1932<sup>†</sup> Gersh modified  
Altmann's methods

Freeze drying  
1948<sup>†</sup> Mercie described  
method for fungi

Freeze drying  
1954<sup>†</sup> Davies described  
method for whole  
animals and plants

Freeze drying  
1960<sup>†</sup> Meryman  
described methods for  
whole vertebrates (USA)

1964 Harris developed  
methods in UK

1922 Kaiserling  
reviewed development  
of formaldehyde  
preservation/colour  
stability

colour preservation  
1936 Pulvertaft  
described method  
using sodium hydro-  
sulphate

1956 Owen & Steedman  
described experiments  
with propylene  
phenoxetol as  
preservative

colour preservation  
1962 Yoshida  
described anti-  
oxidant sodium  
ascorbic method

colour preservation  
1965 Waller  
experimented with  
Butylated Hydro-  
xytoluene (BHT)

1894 Schultz published  
method for rendering  
whole animal trans-  
parent using sodium  
hydroxide

1904-1912 Lundvall<sup>†</sup>  
used alizerine to  
stain bones

1911 Spalteholz<sup>†</sup>  
improved transparency  
methods

1926 Dawson<sup>†</sup> improved  
Spalteholz's methods

1953 Williams<sup>†</sup> used  
toluidine blue + aliz-  
erine to distinguish  
cartilage from bone

<sup>†</sup>see Edwards & Edwards 1959 for references

\*approximate date

<sup>†</sup>see Harris 1964 for references

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We hope that 'Notes for Diploma Students' will appear as a regular feature in future B.C.G. Newsletters. The idea came about when one of us realised that various Newsletter articles, particularly the 'Biodeterioration' special by Reg Harris in 1978, made extremely useful revision notes for the Museums Association Diploma Curatorial Examination. In addition, many of us regret the demise of the 'old-style' curatorial courses, which enabled students to get to grips with biological and geological practices in some depth over a solid eleven day period. This proposed series of notes will at least go towards making up for this loss.

We wish to thank Dr. Ray Ingle (British Museum, Natural History) for permission to reproduce his information sheet, in this issue; and also to appeal to everyone for further articles in the series. Otherwise some gentle arm-twisting may be necessary!! Seriously though, this is an area where B.C.G. can play an active role in training museum biologists, and even the rest of us should find such articles useful 'refresher' material.

- Editors

BOOK NEWS  
AND REVIEWS



Reptiles and Amphibians

I have just received three new and very useful publications from the British Herpetological Society, which should be of interest to members curating herpetological collections or answering public enquiries about British amphibians and reptiles.

'A Guide for the Identification of British Amphibians and Reptiles' by John Buckley is a handy little field or lab. guide to adult animals, spawn, tadpoles, and sloughed snake skins. It covers all the native British species plus the well established aliens Marsh Frog, Pool Frog and Edible Frog.

It was nice to see the plug on page 1 "Biologists working in local museums are usually able to assist amateurs with the identification of specimens and they also like to receive records for their data banks". Single copies are 50p each, but if you buy 20 or more the price is 30p each, which makes it worth selling over the counter at the museum, or giving out to contributors to your own reptile and amphibian surveys. (Postage extra)

'Garden Ponds as Amphibian Sanctuaries' and 'Being Kind to Snakes' are both advisory leaflets issued by the B.H.S. Conservation Committee, packed with useful information about the construction and maintenance of garden ponds, establishment of breeding amphibians and requirements of each species. The snake leaflet provides the real facts about a group of animals which have received an undeserved bad press since just after The Creation.

Again, these leaflets are suitable for slipping into any letter answering an enquiry about herptiles. I tend to be asked for all sorts of advice ranging from setting up ponds for frogs, to refereeing annual contests between greedy goldfish and over-zealous frogs in spring. The S.F.S.F.S. (Sheffield Frog Spawn Flying Squad) is always busy redistributing excess spawn at this time of year. Anyway, back to the leaflets, which I'm sure will prove to be most useful hand-outs and invaluable handy references.

Derek Whiteley

No price given, but enquiries will be received by:

The Chairman, Conservation Committee  
British Herpetological Society  
Zoological Society of London  
Regent's Park  
London NW1

# THE BRITISH HERPETOLOGICAL SOCIETY

The British Herpetological Society was founded in 1947 with the broad aim of catering for all aspects of interest in reptiles and amphibians. Initiated by a small number of enthusiastic and well-known naturalists, including the first president and author of the standard textbook on British herpetofauna, Dr Malcom Smith, the Society expanded rapidly and today enjoys national status with many international connections.

Activities of members range over a number of interrelated fields. In many cases the prime interest is in maintaining, breeding and observing various species in captivity and the Society acts as a forum for the interchange of experiences in this area. Others are concerned with the observation of animals in the wild state. There are active sub-committees which help to cater for these various tastes: the *Captive Breeding Committee* and the *Conservation Committee*. The former encourages the development of effective breeding techniques for captive specimens, thus providing animals for observation and study in vivaria, while simultaneously reducing the need to take fresh stock from wild and possibly declining populations. The Conservation Committee is actively engaged in field study, conservation management and political lobbying with a view to improving the status and future prospects for our native British species. It is the accepted authority on the conservation of reptiles and amphibians in the U.K. and has an advisory role to the Nature Conservancy Council (the statutory government body).

## Meetings

About ten meetings covering a broad sphere of interests are held each year.

## Publications

*British Journal of Herpetology*, published twice yearly, each June and December, contains papers of original research in herpetology.

*British Herpetological Society Bulletin*, also published each June and December, contains notices, news items, articles and original papers on all aspects of herpetology.

*The Care and Breeding of Captive Reptiles*, a book containing a collection of papers on recent developments in breeding reptiles in captivity. This publication is not included in members' subscriptions, but is available to members at a price of £3.00. Purchase orders should be sent to the Chairman of the Captive Breeding Committee.

Information sheets are produced on the care of reptiles and amphibians in captivity. These are continuously added to and updated.

## Library

A reference library of books and journals is maintained for the use of members. The Society conducts exchanges of journals and bulletins with numerous foreign societies and institutions and in this way makes available to members a wide variety of current research, news, and general information.

## Junior Section

This section, organised by the Society's Education Officer, caters for members of the ages 9-17. Junior members pay a reduced subscription and receive the *Bulletin* and a *Junior Newsletter* which is produced three times a year. The Junior Section also has an S.A.E. advisory service for its members in order to provide expert advice on any specific problems.

## Subscriptions

Ordinary members £10.00 Junior members £3.00 Institution and Library rate £17.00

All subscriptions become due on the first day of January each year.

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## APPLICATION FOR MEMBERSHIP

*I am interested in the objects of the above Society and wish to become a member. I agree to abide by the rules of the Society.*

Date ..... Signature .....

Name .....  
(BLOCK CAPITALS PLEASE)

Address .....

I enclose the sum of £.....

Branch of interest in Herpetology:

Any Remarks:

The completed application form should be sent to:  
The Secretary

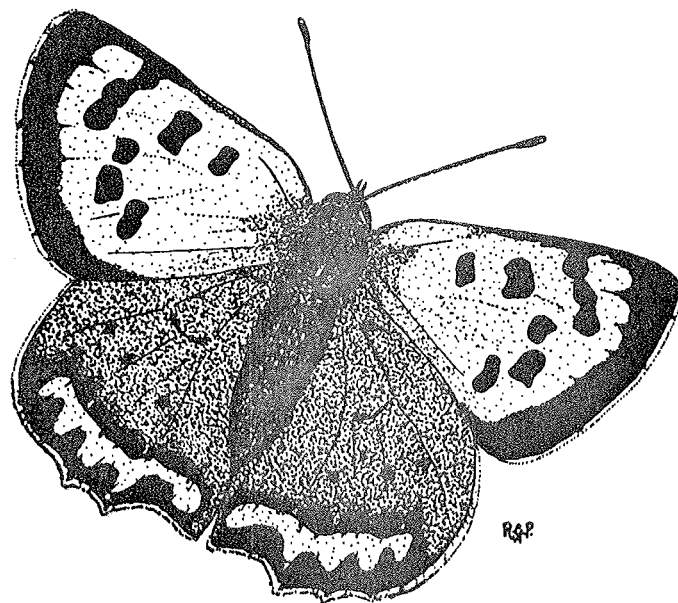
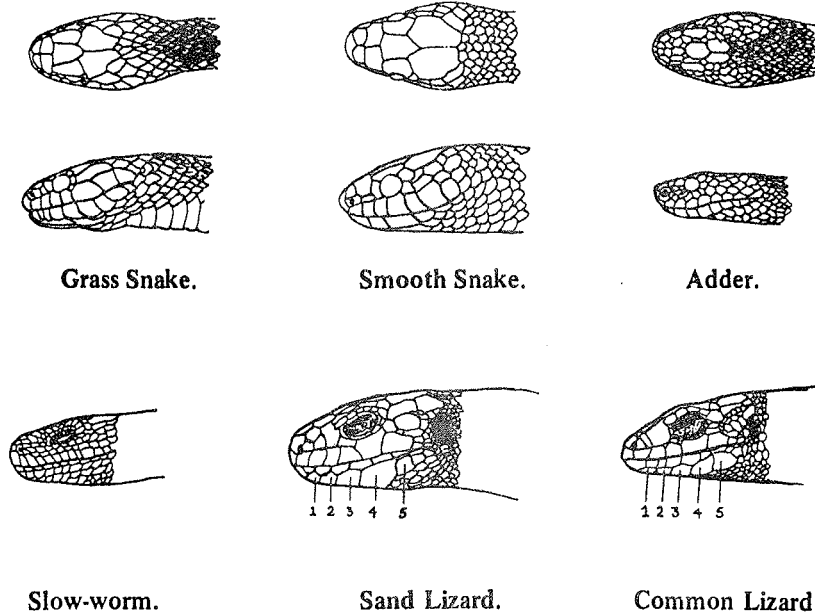
THE BRITISH HERPETOLOGICAL SOCIETY  
c/o Zoological Society of London  
Regent's Park, London NW1 4RY.



## SLOUGHED SKINS

Reptiles shed their skins periodically and in the process the sloughed skin becomes turned inside out. These skins can easily be identified by the size and arrangement of the scale even when the animals' darker markings are not visible on them. The head scales (shields) are most useful for making a positive identification and they are shown in the drawings below.

FIG. 21 Head Scales. (Drawings not all to same magnification)



SMALL COPPER

## Butterflies

Two booklets summarising the status and distribution of butterflies at a local level have been published by museum-based record centres during the past year, to coincide (accidentally or deliberately?) with Butterfly Conservation Year.

### Butterflies of the Sheffield Area

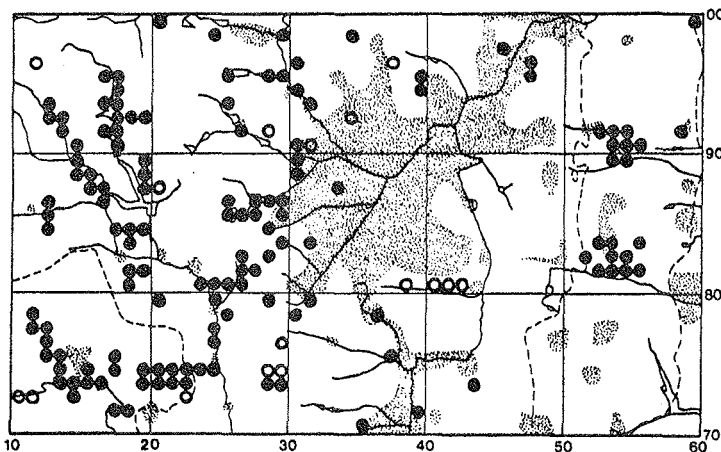
by Steve Garland. Foreword by John Heath  
Sorby Record Special Series No. 5

The latest edition in a series of faunal handbooks summarises butterfly records for the Sheffield Area, including South Yorkshire and north Derbyshire, from Victorian times to the present day. Special features of the book include:-

- a list of larval foodplants for each of 52 local species
- an account of present and past distribution, changes in numbers and relevant records for each species
- accurate 1 km<sup>2</sup> dot distribution maps for 20 common species showing post-1970 and older records at a glance
- histograms illustrating flight periods of 25 butterflies based on local records
- a free transparent overlay with each book, showing maps of geography, geology and altitude. It fits exactly over the species maps allowing readers to draw their own conclusions about distribution.

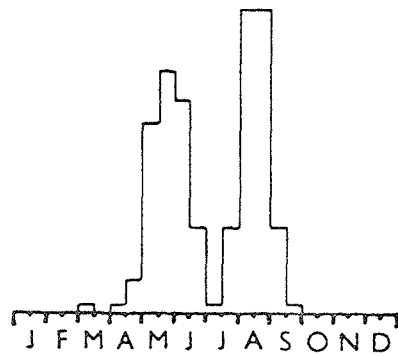
An introductory section on Butterfly habitats, and an extensive reference list complete the book, which is a credit to the thousands of records submitted by Sorby N.H.S. members, and other local entomologists. Here is Sheffield's contribution to 1981 - "Year of the Butterfly".

Published jointly by Sorby Natural History Society and Sheffield City Museums at 90p + 20p by post, available from Sheffield City Museum, Weston Park, Sheffield S10 2TP.

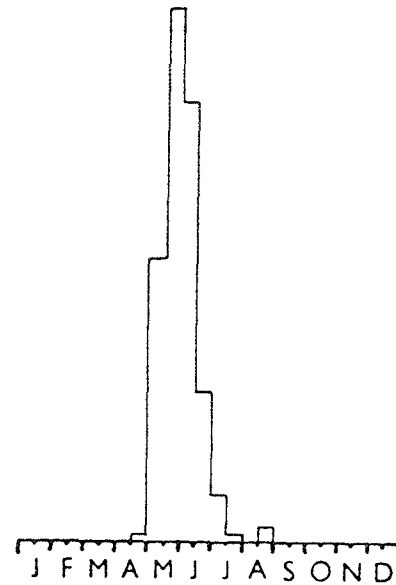


24  
Small  
Heath

## Pieridae



7 Green-veined White



8 Orange Tip

### Histograms of Flight Periods

A graphical representation of the flight period is far more useful than a statement that a species flies, for example from May to July. Records have been totalled for each half-monthly period over twenty years from 1960 to 1980 and plotted for twenty-five species. The vertical axis rises one millimetre for each record. This technique clearly illustrates the peaks and tulls in population numbers and in several cases reveals that the brood cycles in the Sheffield area may well differ from those generally accepted to be true.

## Hesperiidae - Skippers

There are eight resident British species of which four are currently breeding in the Sheffield area. They are the most primitive of the butterflies and are very moth-like in appearance.

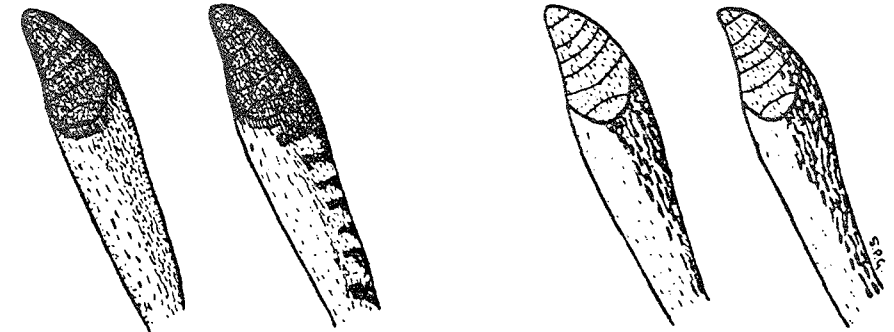
### Small Skipper *Thymelicus sylvestris* (Poda)

Map 5 Graph 1

Foodplants: Grasses including Creeping Soft-grass, Yorkshire Fog, Timothy, Tor Grass and Slender False-brome.

Around Sheffield the Small Skipper appears to have been rare before 1900 with localities including Maltby and Roystone. It was very common at Thorne in 1903 but seems to have been absent from the rest of the area. In 1938 it was described as 'very local and scarce', but there were records about ten years later at Ewden, Dore and Limb Valley. Recolonisation of the area was first noticed in 1967 when one was seen at Hazelbarrow Farm in the Ford Valley. Since then it has increased in numbers and range until during 1979 and 1980 it was recorded more often than the Large Skipper. It now occurs throughout the mapped area in most grassland and scrub habitats, except on the higher ground and in urban areas and it is single brooded. The caterpillar over-winters and adults fly from June to September with a peak population in early August. Pale tips to the undersides of its antennae serve to distinguish it from the Essex Skipper (Fig. 1).

(Brady 1884, Feamehough 1938, Harrison 1971a)



Essex Skipper

Small Skipper

Figure 1. Underside of antennae tips.

### Essex Skipper *Thymelicus lineola* (Ochsenheimer)

Foodplants: Grasses including Couch and Timothy.

The only record of Essex Skipper near Sheffield was at Clumber in 1880. It is at present known from Lincolnshire and may spread into the eastern fringe of our area, so any Small Skippers seen in the east should be checked closely. The antennae are obviously dark-tipped on the underside (Fig. 1).

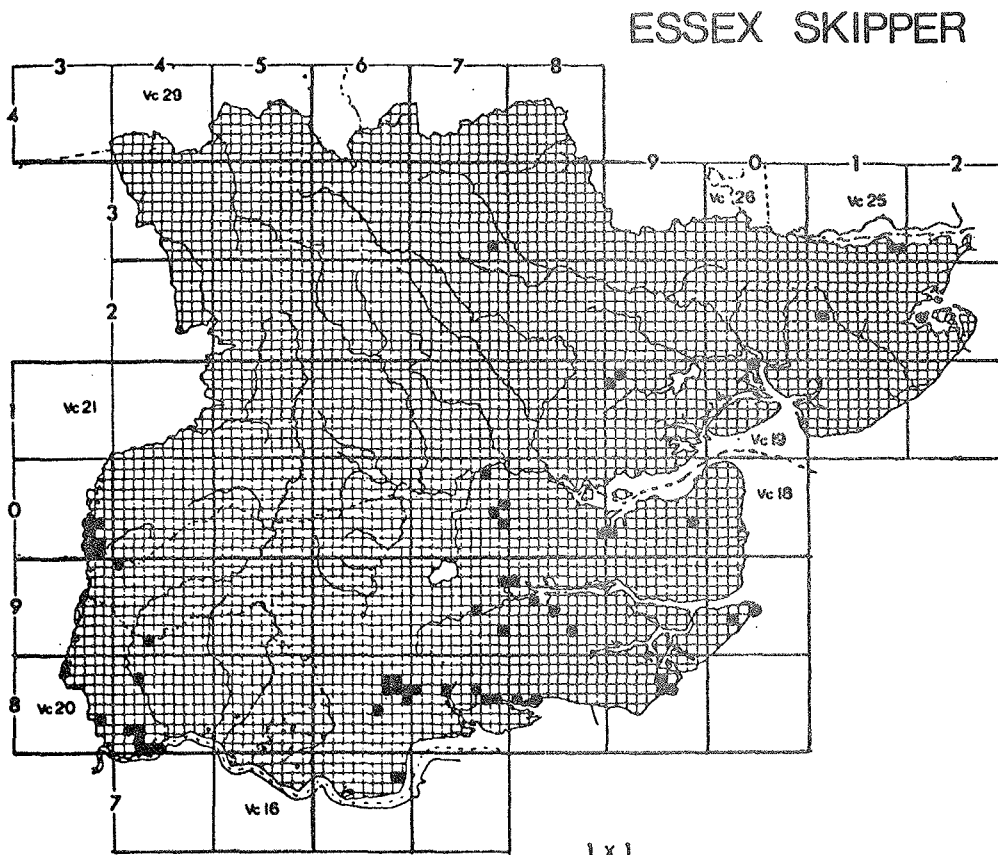
(Barrett 1893)

Butterflies of Essex. Provisional Maps

Essex Biological Records Centres Publication no. 1

The three main Local Biological Records Centres in Essex have combined resources, expertise and records to produce what is hoped will be the first of a long series of county publications. The book is well produced, and contains a status account for each species accompanied by a 10 km<sup>2</sup> distribution map. In addition 25 species have been mapped at the 1 km<sup>2</sup> level, based on records received during the period 1970-1981, providing a more detailed index to localities. Some maps are a little patchy, but as the authors clearly state "they do not pretend to be definitive, they merely provide a base for future recording".

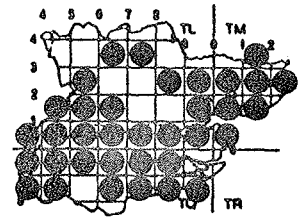
Size A4. 26 p.p. including maps, illustrations. Available at 90p (+ postage) from R. G. Payne, Southend Central Museum.



Family HESPERIIDAE

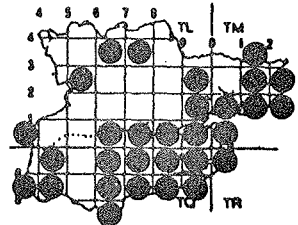
SMALL SKIPPER *Thymelicus sylvestris* Poda

Common and widely distributed, though under-recorded. It is found in meadows, roadside verges, marshes and woodland rides. The larvae feed on various grasses, such as Yorkshire Fog and Slender Brome Grass.



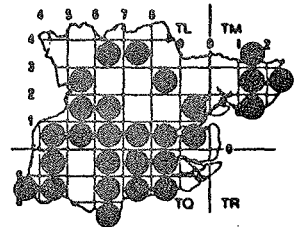
ESSEX SKIPPER *Thymelicus lineola* Ochs.

The true home of this species is in S.E. England. Although it flies in a variety of undisturbed grassy places it is particularly common along sea walls, and in rough grassy places near salt marsh. Although under-recorded, the distribution seems to show a southern and eastern trend corresponding to coastal or estuarine areas. The larval foodplants include various grasses such as Yorkshire Fog, Couch Grass and Slender Brome Grass. The flight period extends from early July to early September.



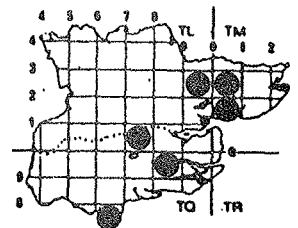
LARGE SKIPPER *Ochlodes venata* Brem. and Grey

Common and widely distributed, though under-recorded. It is found in meadows, roadside verges and woodland rides. The larvae feed on coarse grasses such as Cock's-foot and Couch Grass. Its flight period is from late June through July.



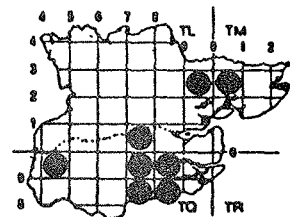
DINGY SKIPPER *Erynnis tages* Linn.

Very localised and rare. It frequents dry grassy places, hillsides, railway banks and open woodland. It may be under-recorded and is worth looking for. Its food plant is Bird's-foot Trefoil and it is on the wing during May and June.



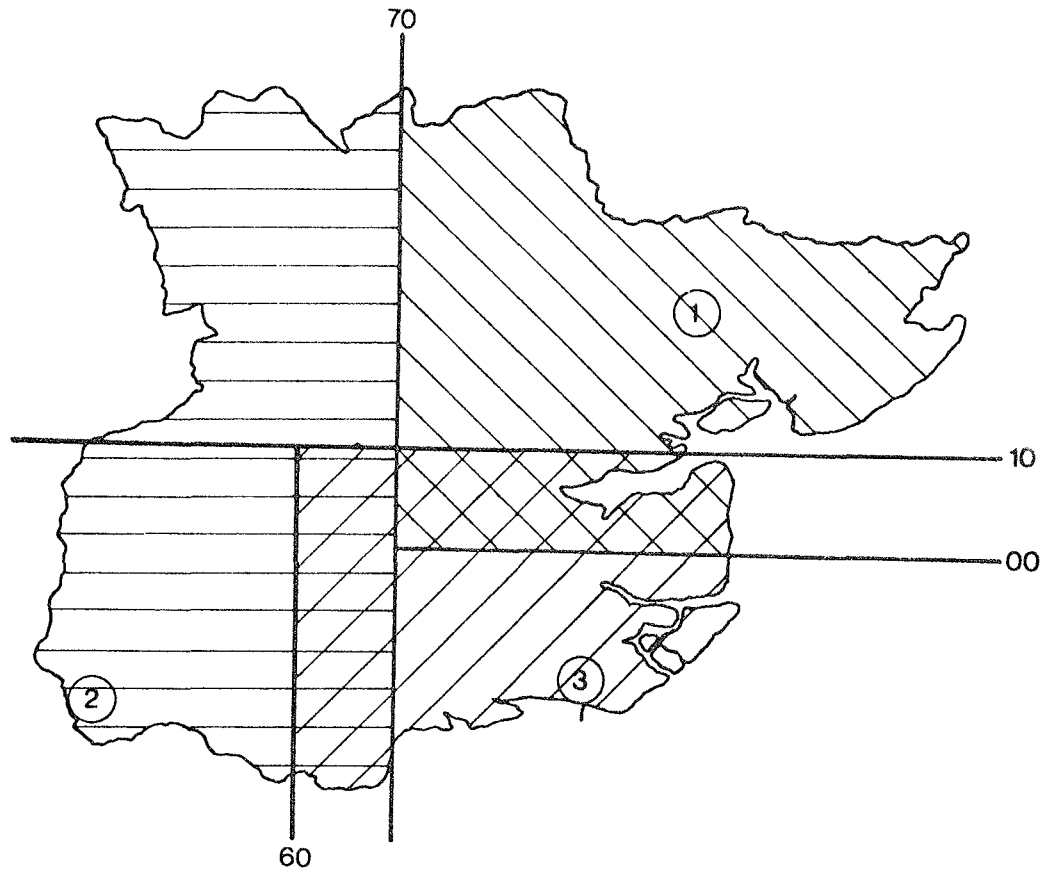
GRIZZLED SKIPPER *Pyrgus malvae* Linn.

Very localised and rare. It is found in dry grassy places, hillsides, railway banks, heathland and open woodland. Like the Dingy Skipper with which it often flies, it is easily overlooked and may be under-recorded. The larvae feed on Wild Strawberry, Barren Strawberry, Creeping Cinquefoil and Raspberry. Its flight period is from May to June.



# ESSEX BIOLOGICAL RECORDS CENTRES

*Areas of active recording ;*



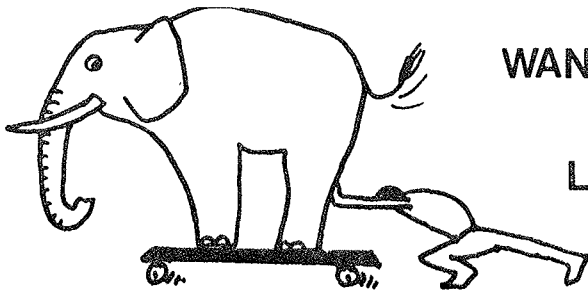
**1 Colchester Museum** Nat.Hist.Dept., High St. Colchester.  
Tel. Colchester 77475

**2 Passmore Edwards Museum** Romford Rd.,  
Stratford, London, E15 4LZ.  
Tel. 01-534 4545 Ext. 376

**3 Southend-on-Sea Central Museum**  
Victoria Ave. Southend on Sea. SS2 6EX  
Tel. Southend 330214

Other centres covering smaller areas at Epping Forest Conservation Centre, High Beach,  
Loughton, (01-5087714) and Parndon Wood Nature Reserve, Harlow Council,  
Parndon Wood Rd., Harlow, (Harlow 30005).





WANTS, EXCHANGES,

LOST & FOUND



Wanted. For the next B.C.G. Newsletter

A number of papers in recent issues of the B.C.G. Newsletter can be regarded as useful supplements or appendices to Flood and Perring's 'Handbook for Local Biological Records Centres'. To keep this series going, someone has suggested the idea of publishing actual examples of different recording formats used in various centres. These would not only be of particular interest to newly established or proposed L.B.R.C.'s, but also to the rest of us. After all, we all like to see how the other folks work!

For starters, it would be nice to publish a selection of species recording cards, sheets, print-outs etc. Please send completed examples to the Asst. Editor, Derek Whiteley by 31 August 1982.

Wanted - Ring Ouzel

Skeleton on loan, or corpse (legally acquired, of course) for the preparation of a disarticulated skeleton. With or without provenance. Contact Derek Whiteley. Sheffield City Museums.

CHARLES DARWIN - WANTED: Data of any insect specimens collected by Charles Darwin which may be lurking in provincial museums if possible with an approximate determination. Also, for a Darwiniana bibliography, any printed (or other) ephemera produced in connection with the Centenary (or any earlier) celebrations. - Kenneth G. V. Smith, Department of Entomology, British Museum (Natural History), London S.W.7 5BD.

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The aims of the Biology Curators' Group are:-

- i) to facilitate the exchange of information between individuals concerned with the management of biological collections and records, their research, conservation and interpretation.
- ii) to present the view of curators of biological collections.

Copy dates for future issues based on three copies per year:

- 31 August for October issue
- 31 December for February issue
- 30 April for June issue

Opinions expressed in this Newsletter are not necessarily those of the Committee of the Biology Curators' Group.

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Insert £15.00

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