Entomology and Conservation—The Importance of Ministry of Defence Land

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The expanding population of Britain and its ever expanding requirements for housing, industry and more efficient farming have led in recent years to an increasing pressure on wildlife. Many thousands of acres of countryside fall to the plough each year or are developed for housing, factories, warehouses and the like, and even more is rendered 'sterile' to wildlife by the use of herbicides and insecticides.

Because of these factors our wildlife is being pushed into the remaining 'natural' areas of Britain where the plants and animals can survive away from man's intervention. These areas are rapidly becoming sanctuaries for many species which are rare or endangered, and in some instances are the only places in which the species lives.

One of the most important owners of land in this respect is the Ministry of Defence (MOD) which holds about 600,000 acres in the United Kingdom and is thus the third largest landowner in the country. Not only is the total area large, but it also contains a wide cross-section of the many different habitat types to be found in the country. These include chalk downland, heathland, woods, bogs and marshes, and 212 miles of coast with both cliffs and extensive dune systems. With all this richness of habitat, and the fact that much of it remains undisturbed, it is not surprising that the land yields a plentiful array of plants and animals. A casual glance at a list of recent sightings produces such things as Natterjack Toads, Greater Horseshoe bats, Stone Curlews and rare orchids.

The MOD obviously has a responsibility for conserving this rich legacy, and yet has no additional money to pay for the labour involved. However they do have an energetic driving force in the person of Lt Col (Retd) C N Clayden, the MOD Conservation Officer who, in the six years since his appointment, has set up over 140 Conservation Groups around the country involving well over 4,000 people. These groups are composed of volunteers, usually a mixture of local naturalists, foresters, members of the Nature Conservative Council and Senior Estate Surveyors, and of course Servicemen, who look after the interests of their local site.

The task of each group is to:

- 1 Record all the wildlife, habitats and sites of historical and scientific interest and to monitor these records.
- 2 Produce a vegetation, archaeological and sensitivity map to show which areas need most protection.
- 3 Prepare management proposals and implement those which are accepted.

The groups also have a role in the education of both the Services and the public in conservation, and many groups liaise closely with other conservation and naturalist bodies¹.

Much of the recording of habitat types and of animal and plant species is a straightforward and enjoyable task for the volunteers; it is often a matter of noting what is seen in the field or identifying collected specimens from a book. Unfortunately this is not the case with the invertebrates. There are, for example, more than 20,000 species of insects in Britain and, though it is relatively simple to identify them to their Order, it takes time and practice to identify to Family level, and normally requires an expert in that Family to identify the specimen to Species.

This difficulty in identification together with the relative lack of entomologists in the country presents an immediate problem if we are to record the insects present in an area and hence know which are rare and in need of protection. To alleviate the problem the Entomology Unit of the Royal Army Medical College was asked to assist in finding entomologists and to give help to any Conservation Group which needed it. In the past two years the Unit has located over 40 entomologists who have been slotted into their local groups. More importantly perhaps, the Unit is acting as a central sorting office for keeping entomologists in touch with others specialising in certain insect Families and hence who are able to identify specimens to species. In theory this should enable the entomologists in an MOD Conservation Group to catch any insect and have it identified within a few weeks.

The Entomology Unit also has the pleasant task

of visiting as many MOD sites as possible in order to meet the members of the Conservation Groups, make an appraisal of the site, and perhaps do a little collecting as well. A record is being compiled of the entomological value of each site for future reference. (A site dossier is also produced by each Conservation Group and this acts as a working document as well as a reference list of the wildlife that has been recorded).

One spin-off from these visits is that the Unit sometimes comes across situations where insects are causing problems by biting and these areas can be used for testing new methods of pest control or for developing traps. For instance the number of horseflies which were biting soldiers on a certain range was reduced by the use of colour traps which caught 24,700 female horseflies in a four week period in 1978, and 17,000 in the same period the following year². A similar colour trap, but this time with the added attraction of CO₂ is now being tested on another MOD area for use against mosquitoes. This work may of course have a much wider application for use in many places where mosquitoes are a considerable problem to the Services.

So, what of the future? The Conservation Groups are growing both in numbers and status and are providing a wealth of new data about the occurrence of many of our British species. On the entomological side there is certainly much to be learnt about the distribution and rarity of many thousands of species, and the recording of insects on MOD areas can only help to improve our knowledge of the invertebrates and at the same time help to preserve those that we might otherwise lose from the countryside. Conservation is of course not the main priority on MOD land (the military requirements and then agriculture take priority in most decisions), but is still a very necessary part of the planning for any major changes which are brought about on MOD sites. May this always be the case.

REFERENCES

- 1 CLAYDEN C N. Conservation at Work in the Ministry of Defence *Proc Trans Br Ent Nat Hist Soc* 1982; **15**: 12-14.
- 2 BURGESS N H R, SHUTTLEWORTH A E, CHETWYN K N. Adhesive Panels as a control method of the Common Cleg *Haematopota pluvialis* L. *J R Army Med Corps* 1979; **125**: 156-161.

Army Bird Watching Society (ABWS)

Membership of the ABWS is open to any serving and ex-service member of the Army, to civilians employed by the Army, and to members of their families. It maintains representatives worldwide and within the counties of Britain and on most training areas where it makes a significant contribution to conservation programmes. The Society produces a quarterly bulletin and an annual journal

which contains articles on a wide variety of ornithological subjects of interest to the serviceman. It also has a large selection of books, journals, slides and tapes that are available for loan to members.

If you are interested write to:

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