

CHAPTER 9

Future direction for the Habitat and Species Action Plans

- 9.1 This chapter draws general conclusions from implementation of the Action Plans to date and makes recommendations for the future direction of the process.

The targeted approach

- 9.2 We firmly believe that the targeted action plan approach remains the right way forward and that the plans should be given time to be implemented and to take effect, particularly since many of them are still young. In this respect, we are encouraged by the evidence that Action Plan implementation has a genuine effect on improving the status of species. Although the UK BAP has been criticised for being bureaucratic, we consider that much of this bureaucracy has been necessary to generate involvement, enthusiasm and co-operation across a wide partnership. It is now the work of the Targets Group to establish mechanisms for co-ordination and streamlining – for example, by guiding the establishment of umbrella groupings for associated habitats and species – to ensure that the bureaucracy of the process does not become too weighty or resource-intensive. At the same time they must consider a mechanism to ensure that the targets remain relevant, focused and dynamic. The new Action Plan database will be a useful tool with which to identify areas of common action to support effective joint working.
- 9.2 The Environment, Transport and Regional Affairs Select Committee report recommended that greater emphasis be placed on the implementation of Habitat Action Plans than Species Plans on the basis that if you look after habitats or ecosystems, a whole suite of associated species is conserved at the same time. We believe that this analysis only goes so far. It is true that some species are closely associated with particular habitats and the publication 'Making the Links'²⁵ has sought to make these associations explicit in order to facilitate joint working between species and habitat steering groups. However, as figure 8.5 shows, many of the species in most serious decline are those that are widely distributed across the landscape. The needs of these species will usually not be met purely by conserving priority habitats. Nor will species with particular needs (for example, those threatened by competition, disease or invasives) be conserved by habitat-based approaches.
- 9.3 We do not agree with Entec's recommendation that most effort should be focused on those species that are charismatic or otherwise have a strong resonance with the public, although we concede that this may be happening. We believe that charismatic species such as the Otter (*Lutra lutra*) and the Skylark (*Alauda arvensis*) are helpful in raising awareness of biodiversity conservation and can be used as signal species for tackling wider issues such as water quality and farmland biodiversity. However, there is no ecological reason why these species require more concerted action than other less attractive species, say of moss or lichen, which are similarly under threat.

²⁵ Thomas and Simonson 1999 *Biodiversity: Making the Links*. Peterborough English Nature (Biodiversity series)

9.4 Given these and other considerations raised in chapter 8, we recommend:

- **Priority should be given to implementation of the existing 436 Action Plans over considering plans for additional habitats and species, unless the Targets Group identifies, in the light of emerging biological information, pressing needs that have not already been addressed and which might require a fast-track process for adoption.**
- **The Targets Group should consider with some urgency whether those species confirmed to be extinct should remain priorities for the UK BAP or whether resources would be better expended elsewhere. Likewise, targets and priorities need to be re-evaluated for species discovered to be more numerous than previously thought and criteria for review should be established. The Group must also establish mechanisms to update time-limited targets as appropriate to ensure that the process remains relevant.**
- **The lack of information regarding the status and distribution of priority habitats and species should be addressed as a matter of urgency. In addition to specific surveys underway, this should involve identifying and collating existing sources of data. Development of the NBN must remain a high priority.**
- **Lack of resources is perceived as one of the most significant constraints to progress by Lead Partners, but the costings research was not able to draw any generally applicable conclusions about the nature of these pressures. Country Groups should consider the extent to which resource gaps should be filled by specific funding programmes, as well as supporting a general trend to encourage adjustments to other expenditure programmes to take account of biodiversity needs.**

Managing the process: monitoring

9.5 We fully support the continual monitoring and reporting of activities and progress with Action Plans to inform future conservation action and the direction of policy. We believe that the UK BAP and Country Group web sites will be fundamental to the management and exchange of information and will provide an interactive means to support those involved in Action Plan implementation. We remain committed to regular reporting, and would like to aim for a more automated process in future, using the web site interactively, and also encompassing local and regional contributions. A commitment to share and exchange best practice and biological information via the web sites and the National Biodiversity Network will provide a current and constantly updated picture of progress and will support implementation.

- **Monitoring and reporting of conservation activities should automatically form part of the responsibilities of Lead Partners, Contact Points, and Action Plan Steering Groups. We need to ensure an effective exchange of information, preferably through a web-based system, which should be supported by the development of review mechanisms, criteria and data standards.**
- **We consider that the new database held in the Biodiversity Information Service of JNCC is an important resource for the UK Biodiversity Partnership. It should be maintained and improved as a principal source of information for analysis and evaluation of the Action Plans, available as a service to the UK Biodiversity Partnership as a whole, Lead Partners, the Country Groups and LBAPs.**

Managing the process: communication

- 9.6 To make the best of the biodiversity process good communications are essential. Making the links and improving communication has been crucial to the success of a number of plans. For example, there are many organisations and individuals that are concerned about the conservation of fungi. But they are a disparate group. In June 1999 Plantlife called a meeting that led to the appointment of a fungi and lower plants officer, funded 50% by English Nature. This will pick up the need for a rolling programme of work as identified in the UK BAP and will greatly improve communications in this neglected field.
- 9.7 There is also a need for combined action between plans. A cereal field margins sub group has been established to collate lists of existing data sets but also to ensure cross-reference to species action plans. Work on the Nightjar is partly dependent on progress on the lowland heathland Habitat Action Plan that is designed to encourage management and re-creation of lowland heathland as well as the management of young forestry plantation. And although work on surveying for the Tiger beetle (*Cicindela hybrida*) has begun on the north west coast of England, it is probably more sensible to include this species in a larger project to work on all *Cicindela* or all BAP-listed carabid beetles.
- 9.8 This means continuing to use traditional methods, such as *Biodiversity News*, but also to use electronic technology to the full to oil the wheels of administration and for improved networking of data and good practice. **We believe that in order to facilitate improved communication throughout the biodiversity process there will be a need to invest considerably more resources into computer equipment, software, programming and training.**
- 9.9 **The single most important aid to better communication will be the establishment and on-going management of a 'user-friendly' and regularly up-dated UK biodiversity web site.** This should contain, as a minimum, information about the statutory species and habitat lists, Action Plans, lists of Lead Partners as well as summary details of Local Biodiversity Action Plans. It must enable 'searches' for species and habitats and show geographical location and extent.



Progress with the Nightjar Plan depends on management and re-creation in the lowland heaths plan.

- 9.10 As the discussion on LBAPs in chapter 10 will show, one of the current problems is the difficulty of local actors in relating their plans to national objectives and, in their turn, for Lead Partners to keep sufficiently apprised of actions around the country that are helping to achieve action plan targets. **We believe briefing should be prepared by Lead Partners to guide local players, in particular LBAPs, and should be made available via the web site and/or through regional fora. LBAPs should make available information to Lead Partners via up-dating of the LBAP directory and through direct contact. Further guidance for Lead Partners on how potentially conflicting actions between Plans are to be resolved is also necessary.**

CHAPTER 10

Local Biodiversity Action Plans

'What comes across time and time again is the overriding importance contributors attach to their neighbourhood, their local patch. Yet there are feelings shared across Britain which seem to be determined by the kind of place people live in, and sometimes there is more in common between a village in Scotland and a village in Norfolk than there is between two adjacent Welsh settlements. These have been among the most encouraging revelations of the project, echoing as they do the insistence of the 1992 Rio Earth summit that the future of life on earth depends crucially on local understanding and action'

Richard Mabey, Flora Britannica 1996.

- 10.1 This chapter discusses the background to and development of Local Biodiversity Action Plans (LBAPs), of which there are around 160 across Great Britain.
- 10.2 The 1995 Steering Group Report emphasised the importance of Local Biodiversity Action Plans to complement the national strategy. The UKBG's Local Issues Advisory Group (LIAG), working with the Local Agenda 21 Steering Group, prepared 5 guidance notes in 1997²⁶ to advise local players. They were distributed to all local authorities above parish level throughout the UK. 'Local Biodiversity Action Plans: A Manual'²⁷ published in November 1997 by the Scottish Biodiversity Group supplemented the UK guidance. It drew on the practical experience of developing Local Biodiversity Action Plans in four pilot areas selected to represent a wide range of social, environmental and economic circumstances. The guidance notes were complemented in April 1999 by case studies giving practical examples of these and other local biodiversity initiatives. A sixth guidance note, 'Education – Awareness to Action' was published by the England Biodiversity Group in March 2000²⁸.

Functions of Local Biodiversity Action Plans (from Guidance note 1)

- To ensure that national targets for species and habitats, as specified in the UK Action Plan, are translated into effective action at the local level.
- To identify targets for species and habitats appropriate to the local area, and reflecting the values of people locally.
- To develop effective local partnerships to ensure that programmes for biodiversity conservation are maintained in the long-term.
- To raise awareness of the need for biodiversity conservation in the local context.
- To ensure that opportunities for conservation and enhancement of the whole biodiversity resource are fully considered.
- To provide a basis for monitoring progress in biodiversity conservation at both local and national level.

²⁶ *Guidance Notes: 1-5* (LGMB & UKBG, 1997)

²⁷ *Local Biodiversity Action Plans: A Manual* (SBG, 1997)

²⁸ *Guidance Note: 6* (EBGB & CEE, 2000)

- 10.3 Following publication of the LIAG guidance notes, the task of developing and encouraging LBAPs passed to the Country Groups.
- 10.4 The England, Scottish and Wales Biodiversity Groups have each established sub-groups to take forward the development and implementation of LBAPs. In Scotland this work has benefited from the practical experiences gained in the four pilot projects and the employment of a full time LBAP project officer. LBAP officers are now also in place in England and Wales, following recent appointments. All of Scotland and Wales are covered by LBAPs. In England, growth has been more fragmented although LBAPs have been initiated for a large proportion of England at district and unitary authority level. With the development of its Biodiversity Strategy, Northern Ireland has adopted a distinctive approach that leaves open a subsequent role for LBAPs.
- 10.5 The UKBG's aim is for Local Biodiversity Action Plans covering the whole of the UK. **The UKBG urges the England Biodiversity Group to adopt the goal of 100% coverage and for all Country Groups to seek to ensure that LBAPs are comprehensive and effective.**

Durham Local Biodiversity Action Plan

The Durham LBAP ranges from the Northern Pennines in the west, with their bogs, acid grasslands and heather moorland, the East Durham lowlands, with their limestone grasslands and wooded denes, to the Durham coast.

Begun in 1996, the Plan is the work of a partnership of all district and unitary local authorities, conservation bodies, landowners, businesses and individuals. A dedicated project officer employed by the partnership prepared the Action Plan, in loose-leaf format, published in January 1999.

The plan includes actions for national priority species like the Black grouse, Brown hare and Freshwater white-clawed crayfish which are to be found in the area.

It also includes species of local importance such as the Northern brown argus butterfly, Spring gentian and Black poplar as well as locally significant habitats such as Juniper scrub.

The implementation officer is now working in partnership to deliver:

- A guide and events for the business community ;
- A guide on biodiversity and the land-use planning system for the North East in collaboration with neighbouring LBAPs, Government Office N-E and local planning authorities;
- A guide for local authorities to incorporate biodiversity into their services.

The plan has also started many new projects for species and habitats including:

- Tree Sparrow 2000 – a programme to build and locate 1000 nest boxes.
- Durham BAP Native Heathland Nursery – using local authority facilities and horticultural expertise to set up a native heather nursery for future lowland heath creation, with plans for diversification into bilberry and juniper.
- 'Song Thrush Friendly Zones' – a fact sheet encouraging gardening that is helpful to song-thrushes. Window stickers declare: 'You are now entering a song thrush friendly zone.'

- 10.6 Section 4 of the Local Government Act 2000 places a duty on local authorities in England and Wales to prepare community strategies for the economic, social and environmental well-being of their areas. The Government and the National Assembly for Wales have declared that this duty provides a suitable means for ensuring that biodiversity conservation, as an element of sustainable development, is integrated with local authorities' wider responsibilities. DETR Circular 04/2001 makes it clear that LBAPs are amongst the elements local authorities should build on when preparing their community strategies.

- 10.7 Voluntary conservation bodies currently lead a number of LBAPs in England. But the involvement and commitment of local authorities is essential to their successful development and implementation. Local authorities have a vital role to play in the implementation of LBAPs through integration with their policies on planning, land management, community involvement and sustainability. **We believe that Local Biodiversity Action Plans, incorporating authorities' action on local wildlife sites, should be a component of community strategies. Local authorities should take account of biodiversity in their duties of achieving Best Value and make links to local quality of life indicators.**
- 10.8 The achievement of LBAPs' objectives will take some time to emerge and will to an extent depend on how far their preparation and implementation fully engages all relevant sectors and organisations. The level of engagement with local people, local authorities, businesses and others has been very variable. A survey of LBAPs in England indicated that the LBAP process had brought together a wide range of groups, many of which were not conservation organisations. But the survey also showed that businesses, landowners and community groups were among those who were less fully involved. Further good practice guidance on how to encourage increased involvement from such sectors seems necessary, drawing on the work on awareness raising among the agricultural and business sectors undertaken by the Scottish Biodiversity Group. **Country Groups should encourage LBAPs to increase the involvement of all sectors of the community in plan preparation and implementation, if necessary by the preparation of best practice guidance.**

Upland grain initiative:

The Cairngorms Local Biodiversity Action Plan and the Local Farming and Wildlife Advisory Group are taking forward an exciting farmer-led initiative to try and save declining bird species in Badenoch and Strathspey.

It is hoped that Skylark, Linnet, Twite, Redpoll, Yellowhammer, Snow Bunting, Brambling, Greenfinch, Tree Sparrow, Corn Bunting, Reed Bunting and Grey Partridge, but especially Capercaillie and Black Grouse will benefit.

Until the 1970s these species used to regularly feed on oat stooks during the winter and were sometimes regarded as pests. These rare and remarkable birds face many problems. Helping to recreate similar habitat conditions to those in the 1960s and 1970s might help tip the balance back in their favour.

In the first pilot study of its kind, ten farmers and crofters grew small areas of grain (mainly oats) in fields next to woodlands. If the project is successful, it might be possible to broaden out to other areas of the Cairngorms through mainstream agri-environment funding.

If any of the sites are successful at drawing in Black Grouse and Capercaillie, it is hoped to be able to provide sensitive and appropriate viewing opportunities for these charismatic species. Providing a safe site to view these birds may reduce disturbance during the breeding season and potentially provide the farmers and estates with a modest extra source of income.



Community involvement and support are a vital part of local biodiversity action plans.

- 10.9 LBAPs will be judged on their contribution to the delivery of national, as well as local, species and habitat targets. This requires co-operation and co-ordination between the national Action Plan Lead Partners and the LBAPs. LBAPs should identify the national priority species and habitats occurring in their area. LBAP targets should reflect and complement the national targets, be relevant to the level at which the plan is operating and be realistically achievable. **Lead Partners and Agencies should be clearer about what national actions and targets are best delivered through LBAP means.**

Guidance for Local Habitat Targets in Wales

Translating national targets for priority habitats and species to the local level is important to guide priorities and stimulate action.

In Wales, reliable country-wide data on habitat cover is available mainly from the Phase I level surveys of upland and lowland habitats between 1979 and 1997.

A GIS-based analysis has provided area figures for each terrestrial priority habitat type within each of the 25 Welsh LBAP areas. Equivalent indicative local figures have been derived for maintenance, restoration and re-creation to help LBAP planning.

Each 3-4 page habitat account contains:

- a description and definition of the habitat;
- an analysis of its significance in a Welsh and UK context;
- information on its extent, distribution and condition in Wales;
- a short profile of associated BAP priority and other notable species;
- and a distribution map of the habitat superimposed on the Welsh LBAP boundaries.

- 10.10 Discussions at Lead Partner and LBAP workshops held during 2000 highlighted the need for improved communication between Lead Partners and LBAPs which would be assisted by the breaking down of national species and habitat targets to the local level. CCW and English Nature have begun to do this. **Considerable further work is necessary to facilitate communication between LBAPs and leaders of national Action Plans. The aim should be to ensure that LBAP activity and results can be reported regularly and effectively to the national reporting framework by electronic means.**

- 10.11 Funding was the most significant issue of concern raised in the survey of LBAPs in England. Concern about the short-term nature of dedicated LBAP posts and uncertainty about funds for implementation were most frequently expressed, although many were able to report substantial contributions from sources such as the National Lottery and Landfill Tax. And the £660,000 made available from CCW to LBAP development in Wales has been very welcome. **The individual Country Groups should consider the funding needs of their LBAPs in more detail and the possibility of funding strategies which support the goal of 100% effective LBAP coverage and implementation.**
- 10.12 LBAPs also have an important role in relation to the development of local biological record centres as nodes of the National Biodiversity Network. The development of LBAPs is placing new demands for collation and collection of records and better co-ordination of local surveys and habitat inventories. Such local initiatives should be co-ordinated with regional and national information gathering exercises. The NBN provides a conduit for the flow of information exchange and best practice. **LBAPs should provide a stimulus to the development of local biological record centres as nodes of the NBN.**



Local biological record centres can provide essential data for local biodiversity action plans and the National Biodiversity Network.

CHAPTER 11

The Management of Biodiversity

- 11.1 A central objective of the UK BAP is to secure biodiversity improvements through other areas of policy. But there are important issues to address through biodiversity conservation policies in their own right. This chapter discusses the main strands of UK biodiversity policy in terms of habitat and species management.

Land management and the conservation of habitats and species.

- 11.2 The UK has a history of low-intensity agriculture and human land-use on which, over hundreds of years, many species have come to depend. As a result, many of our most diverse habitats would be lost without some form of management. And many of the Action Plan targets require the management of land to maintain, enhance, restore or re-create its value to biodiversity – in terms of quantity or quality. The scale of activity varies from the small plots of land encompassing a few square metres (such as for the Spangled diving beetle *Graphodermus zonatus*) to the landscape scale (as in the upland heath HAP).
- 11.3 Habitat management and conservation is one of the most important areas for action. All HAPs and over 99% of SAPs have actions relating to this area. Together these include some 1900 action points, representing about 30% of the total in the Action Plans.
- 11.4 Several priority habitats have in the past become much reduced in extent, and fragmentation has affected their functional viability. Nearly 85% of HAPs contain targets for either re-creating habitats or improving their quality. These include 23 HAPs for which Lead Partner reports were received, and which show that progress is already being made towards the targets in 14 cases (60%).
- 11.5 Habitat re-creation has an important role to play in increasing the area of land available for associated species, linking sites to enhance opportunities for species migration (for example, in the face of climate change), increasing the area for ecosystem processes to operate and to sustain biodiversity through more natural mechanisms. 109 SAPs contain actions relating to habitat creation and/or reducing fragmentation. Lead Partners reported on 98 of these plans, and approximately 45% have achieved progress on the relevant actions.
- 11.6 Much habitat management aims to adjust or sustain economic land uses to benefit biodiversity. These include particularly agriculture, water management and forestry activities, but also development-related work, such as habitat re-creation following mineral extraction. Agricultural policy reform and the emergence of agri-environment schemes have brought about more biodiversity-friendly agricultural policies and practice on a broad scale, as have changes in forestry practices for woodland management.

- 11.7 Countryside sports exert an important influence on the management of substantial areas of the countryside. Often, management for huntable species will provide the motivation to retain and manage habitat to benefit other, non-quarry species. For example, managing heather moorland for Red grouse benefits moorland birds such as Golden plover. The 4500 professional keepers in Britain influence the management of some 7.3 million hectares of land. The contribution made by countryside sports to biodiversity conservation is important and was set out in a report by the Standing Conference on Countryside Sports, 'Countryside Sports and the UK Biodiversity Action Plan' in 1999²⁹. In 2000 the British Association for Shooting and Conservation (BASC) published 'Green Shoots: The Contribution of Shooting to Biodiversity in the UK, an Action Plan'³⁰. This provides not only a vision for the contribution of the shooting community to biodiversity conservation as a whole, but also specific work towards particular Action Plans.



Wildfowling clubs own, lease or manage some 105,000 ha of coastal zone habitats.

- 11.8 Although we have not seen land abandonment on the same scale as some other parts of Europe, there is an increasing trend away from land management for traditional economic outputs such as food and timber. This leads in many cases to the need for new intervention to preserve the biodiversity encouraged by some traditional forms of land management. Results from Countryside Survey 2000 show increased abundance of tall grasses and herbs and woody plants, indicating a general trend in many habitats towards less frequent management. Conservation bodies often maintain habitats such as reedbed, heathland, chalk grassland and native pinewood through acquisition as nature reserves, or by the establishment of teams to undertake conservation management work on private land. Alternative economic gains can thus arise through employment opportunities, sustainable tourism and harvesting of natural products, such as reeds.

²⁹ Countryside Sports and the UK Biodiversity Action Plan (SCOCS, 1999)

³⁰ Green Shoots: The Contribution of Shooting to Biodiversity in the UK, an Action Plan (BASC, 2000)

Heathland management projects

English Nature's 1997/98 SSSI condition survey showed that 33% of lowland heath site units were in favourable condition with a further 33% in unfavourable recovering condition, 15% in unfavourable stable condition and 19% in unfavourable declining condition. This situation is an improvement on previous surveys and in part reflects the work put in by county-level heathland management projects.

One of the longest-running projects is in Dorset, where the RSPB operates two dedicated teams of heathland managers. The project concentrates on the three-quarters of Dorset's heathland that is outside nature reserves. Since the project started in 1989, over 650 hectares of heathland have been restored to favourable condition and a further 160 hectares are being re-created.

In recent times Heritage Lottery funds have been allocated towards a major expansion in the amount of heathland management work being undertaken. The total value of the Tomorrow's Heathland Heritage programme (including partner contributions) is expected to top £25 million, and if fully implemented should deliver c.40,000 hectares (69% of the lowland heathland BAP restoration target (58,000 hectares) and c.2,400 hectares (40%) of the re-creation target (6,000 hectares). The programme currently involves some 140 partner organisations.

The question of how heathland management will be funded beyond Tomorrow's Heathland Heritage remains unanswered – it is imperative that long-term solutions are found if the BAP targets are to be achieved and then sustained.

Habitat Action for Reedbeds and Bitterns

Rehabilitation and re-creation of reedbeds is intimately connected with the achievement of Bittern population targets.

- 726 ha of reedbed has been rehabilitated (90% of target).
- 300 ha of reedbed has been re-created (25% of target).
- Bittern numbers up from 11 males in 1997 to 22 in 2000.
- The Bittern EU 'LIFE' Project involved a partnership of 4 NGOs and 3 statutory organisations.
- The Bittern 'LIFE' funding contributed 50% of the rehabilitation target, illustrating the value of species in achieving habitat conservation.
- More work is needed to achieve the reedbed re-creation target and provide for sustainable Bittern populations.
- A reedbed 'task force' is being set up to advise on site management.
- The UK is contributing to a European reedbed management guide to be published in 2002.

11.9 Site designation and protection continue to be important for habitat and species conservation: this type of action is specified in 38 HAPs and 196 SAPs. The largest area for action is in the review and notification of SSSIs/ASSIs. Lead Partner reports indicate that 49% of these actions have been initiated. A continuing issue remains the extent to which it is appropriate for the SSSI/ASSI process to embrace protection and management of individual species, some of which occur in small patches and others which are widely distributed across the countryside.



The Steering Group for the Tower Mustard considers that increased coverage by the SSSI network is needed but this may not be appropriate for other species.

- 11.10 Those areas holding species and habitats of international importance under the EU Birds and Habitats Directives may also be designated as Special Protection Areas (SPAs) or Special Areas of Conservation (SACs). A review of the SPA network is currently underway and may identify a need for further SPAs in the future. Following EU-wide moderation of Member States lists the UK is in the process of adding sites to the suite of candidate SACs.
- 11.11 The network of sites listed under the Ramsar Convention as wetlands of international importance is also currently under review to ensure that all wetlands which merit listing are included. The protection afforded to Ramsar sites has improved in England and Wales. The Countryside and Rights of Way Act 2000 gives statutory recognition to these sites for the first time. In addition, the recently published DETR and NAW Ramsar policy statement should ensure that there is no net loss of Ramsar interest on sites in England and Wales.
- 11.12 Despite high proportions of some BAP habitats being afforded statutory site protection, many features of SSSIs are not in favourable condition. Much of the decline in SSSI habitat quality has been due either to conflicting land-use policies or the absence of conservation management rather than to direct habitat destruction. For England and Wales, the Countryside and Rights of Way Act 2000 should make a significant contribution to reversing this trend. It introduces new powers for English Nature and the Countryside Council for Wales to prevent potentially damaging operations affecting SSSIs. It will enable them to provide clearer guidance on what management is required and where necessary to require such management measures to be carried out. Public bodies and statutory undertakers have new duties to exercise their functions to further the conservation of SSSIs and to ensure that their activities contribute to their conservation. The Act also introduces a 'general offence' of intentionally or recklessly damaging SSSIs. These new measures will be supported with revised financial guidelines and a new code of guidance. Modernisation of site safeguard legislation is also under consideration in Scotland and Northern Ireland.

- 11.13 **We welcome the continuing efforts being made to secure improvements in the extent and management of protected areas. However, sensitive land management beyond designated sites is necessary for biodiversity improvements and work continues to be needed to extend appropriate management practices to a landscape scale.**

Species-specific conservation

- 11.14 Suitable management of habitats is important for all species, but many have particular needs that must be explicitly addressed. Consequently, it is not necessarily the case that habitat-focused conservation will lead to the successful conservation of all associated species. Over 1100 individual SAP actions are intended to address species-specific issues such as population vulnerability, habitat fragmentation, and the threats from non-native invasive species.

MANAGEMENT OF HABITATS FOR SPECIES

- 11.15 Localised habitat management needs have been identified for a number of Action Plan species. Among those needing particular attention are the 40% of BAP species that are restricted to less than 5 sites in the UK. These are often vulnerable to even small changes in their local environment, for example the Lichen *Calicium corynellum* was almost lost from its only known site in the UK, as a result of repair work to a churchyard wall. More widespread species may also have very precise needs: the Leaf beetle *Cryptocephalus coryli* requires young birch scrub on calcareous grassland. **We believe that agri-environment schemes should accommodate local prescriptive variation to take account of the requirements of individual species.**



Specific localised habitat management needs have been identified for a number of SAP species. Sand lizards require open ground on heaths.

- 11.16 Resources for species-specific management may prove particularly limiting for the many BAP species that are little known to the general public, such as the lower plants. Sponsorship has proved hard to find for these less charismatic species, and other funding sources, such as the Heritage Lottery Fund, have focused on broad habitat projects. Lead Partners and the country agencies have an important role in ensuring that these species are not neglected in the UK BAP process. A second issue of particular concern for lesser known groups of species is the availability of skilled professionals and volunteers with the necessary taxonomic, ecological and land management expertise. **There is a need for training within academic institutions, professional and voluntary conservation organisations in order to raise the skill base to deliver UK BAP objectives.**

EX-SITU CONSERVATION

- 11.17 Ex-situ conservation is sometimes vital to preserve species in the event of failure of field-based conservation. It can also be an important precursor to translocation work. It includes captive breeding programmes for animals, plant propagation from cuttings and seeds and the long-term storage of seeds in 'seed-banks'. 112 BAP species have actions relating to ex-situ conservation. Of those reported on, 50% are showing at least some progress. An area of particular success has been in the ex-situ conservation of vascular plants, for which nearly 90% of actions are showing progress. This is a reflection of the success of wider programmes, such as the establishment of a national seed bank by the Royal Botanic Gardens, Kew. The Federation of Zoological Gardens have also made an important contribution through the captive breeding of crickets, moths and reptiles for re-introduction projects. In addition a veterinary pathology service to check the health of both vertebrates and invertebrates, before re-introduction, has been provided by the Zoological Society of London.

The National Botanic Garden of Wales

The National Botanic Garden Wales (NBG) was officially opened in 2000. Biodiversity conservation is one of its main objectives, *in situ* wherever possible and *ex situ* if necessary to ensure the survival of a species.

NBG is the lead partner for Ley's Whitebeam *Sorbus leyana*, carrying out research into propagation methods and its ecology.

The garden has a special emphasis on Welsh flora (particularly micro-species) and habitats, but also helps internationally by growing a number of species from Mediterranean areas for display and propagation, and through its involvement in the International Conifer Conservation Project.

The Garden is committed to conserving biodiversity on its own estate and has already identified the plants and animals found there. Future management regimes will conserve this range of species and habitats and demonstrate different agri-environment mechanisms.

Education and interpretation are central to the work of the NBG. A successful Biodiversity Fair was held in September 2000 when the NAW Environment Minister, Sue Essex launched the Carmarthenshire Local Biodiversity Action Plan.

Further information can be obtained from www.gardenofwales.org.uk

- 11.18 Although there have been marked success stories, ex-situ conservation can only be a first step towards species recovery. It must often be accompanied by detailed research to understand the conditions required for the species to survive in the wild. Furthermore, any subsequent introductions require careful long-term monitoring to ensure persistence. Shortage of resources for such programmes is an issue, since they are often expensive, particularly for animal species.



The Lady's Slipper orchid was reduced to only one site but has now been reintroduced to 12 sites exceeding the Action plan target.

INVASIVE SPECIES

- 11.19 Non-native species are recognised as a major cause of extinctions on a global scale and will be a focus of the next Conference of the Parties of the Convention on Biological Diversity (COP6). These species are potentially so harmful because, following their arrival, they often find themselves in an environment where they lack predators and parasites, so giving them a competitive advantage over native species. They may also carry diseases against which local species have no immunity. For example populations of our native White-clawed crayfish *Austropotamobius pallipes* have been devastated by crayfish plague, a fungal disease carried by the invasive Signal crayfish *Pacifastacus leniusculus*. Non-native species can also harm native wildlife through changing the environment. For example, the New Zealand Pygmy weed *Crassula helmsii* causes changes to freshwater ecosystems that threaten species like the Starfruit *Damasonium alisma*.
- 11.20 At least 41 priority species and 17 priority habitats are known to be threatened by invasive species. An area of particular concern is the importation of exotic plant and tree species. While these attractive plants may prove popular with the public they can do considerable harm to the countryside and native species. The Rhododendron, for example, has become widely established since it was first introduced from Asia. It now threatens at least one priority BAP habitat and nine BAP species, including two of our few endemics, the Lundy Cabbage *Coincya wrightii* and its associated beetle *Psylliodes luridipennis*.
- 11.21 There is currently little legislative control over the importation of exotic species (apart from those which are themselves endangered in their native countries), or regulation of their release into the wild. The media has an important role to play in discouraging the use of harmful exotic species, through such means as gardening programmes on television. **We welcome the Government's announcement of a fundamental review of the policy relating to the control of non-native, invasive species. We also welcome and endorse the guidelines produced by the Forestry Commission and Flora Locale regarding the use of native species.**

Flora Locale and Plantlife– Planting with Wildlife in Mind

Building on people's enthusiasm to plant native flora on farms, parks, gardens and highways, Flora Locale has produced a series of advisory notes for designers, buyers and suppliers to encourage the use of seeds and plants from native sources.

Most recently, they have worked with Plantlife to produce a Code of Conduct for Growers and Suppliers of Native Flora. Suppliers who sign up to the code will be identified on Flora Locale's list of native flora suppliers (www.floralocale.org).

Suppliers signing up to the Code agree to monitor their stock through the supply chain and to describe native flora in an unambiguous way so that the origin of plants and seeds is clear to purchasers and users.



The endemic Lundy Cabbage requires the control of invasive Rhododendron.