

Species and Habitat Action Plan Assessment Form

Please refer to the accompanying guidance for information about how to complete this form and an explanation of terms used

Field 1: Action Plan details

| | |
|------------------------------------|--|
| Species/Habitat Action Plan | Narrow-headed Ant <i>Formica exsecta</i> |
| Lead Partner/Agency | Wildlife Trusts (Scottish Wildlife Trust) |
| Steering Group/Other organisations | Yes, Scottish Wildlife Trust, Scottish Natural Heritage, Devon Wildlife Trust, University of Aberdeen, University of Exeter, English Nature, Forestry Commission (other organisations already involved being approached) |
| Work programme in existence? | Yes, Actions listed in Steering Group minutes (January 1998) |

Field 2: Objectives and targets overview

Please list the targets for the action plan, indicating in which country/region the target is applicable, and additional comments including the rationale for new targets. For each new target please add new sequential paragraph numbers and target text. Please provide information about progress and country disaggregation in Table A for all targets.

| Number and text | UK | E | NI | S | W | Comments |
|---|----|---|----|---|---|----------|
| 4.1 Survey to confirm the distribution of the species in the UK by the year 2000 | | | | | | |
| 4.2 Maintain and, if possible, enhance the two main Devon populations and those in Glenmore through appropriate management. | | | | | | |
| 4.3 Develop and implement artificial rearing and translocation techniques by 2000 | | | | | | |
| 4.4 Re-establish 10 self-sustaining populations in appropriate locations in Dorset or the New Forest by 20005 | | | | | | |

Field 3: Proposed actions overview

Please list the proposed actions for the action plan, indicating in which country/region the action is applicable. For each new action please add new sequential paragraph numbers and action text. If the action is regarded as significant (please see guidance) indicate this in the box and provide further details in Table B. For actions not regarded as significant simply state if the action is ongoing or complete. Remember any action which is being dropped from the workplan will be regarded as significant for the first round of reporting.

| Number and text | UK | E | NI | S | W | Action significant? | Action complete or ongoing? (Please state yes, not started, or ongoing.) |
|--|----|---|----|---|---|---------------------|---|
| 5.1.1 No action proposed | | | | | | | |
| 5.2.1 Seek to secure favourable management for this species at all existing sites, helping to prepare, and encourage the implementation of, management plans including protecting sites from damaging activities (ACTION: EN, SNH) | | | | | | | |

| | | | | | | | |
|---|--|--|--|--|--|--|---------------|
| 5.3.1 Following further survey and research, and the identification of suitable sites, seek to restore 10 populations to former sites in Dorset or the New Forest by 20005, using artificial rearing techniques as necessary. (ACTION: EN) | | | | | | | On going |
| 5.4.1 Ensure the provision of detailed guidance to site owners and managers regarding the management requirements of the species and its habitat. (ACTION: EN, FA, SNH) | | | | | | | |
| 5.5.1 Promote research to identify the habitat requirements of this species, especially into the colony structure and formation, genetic variation and integrity of colonies, competition with other ants, asexual reproduction, artificial rearing and translocation techniques. (ACTION: EN, SNH) | | | | | | | |
| 5.5.2 In co-ordination with other organisations, survey all former and existing sites in Scotland to ascertain the current status of the species in the country (ACTION: SNH) | | | | | | | Near Complete |
| 5.5.3 Encourage monitoring of existing populations and identify any further threats to the species. (ACTION: EN, SNH) | | | | | | | |
| 5.5.4 Encourage research on the ecology and distribution of this ant at an international level and use the information gained towards its conservation both in the UK and internationally. (ACTION: JNCC) | | | | | | | On going |
| 5.5.5 Pass information gathered during survey and monitoring of this species to JNCC or BRC so that it can be incorporated in national databases. (ACTION: EN, SNH) | | | | | | | On going |
| 5.5.6 Provide information annually to the World Conservation Monitoring Centre on the UK status of the species to contribute to the maintenance of an up-to-date global red list (ACTION: JNCC) | | | | | | | Not started |
| 5.6.1 Promote opportunities for the appreciation and conservation of the narrow-headed ant and its habitat. (ACTION: EN, SNH) | | | | | | | On going |

Field 4: Assessment of status

Please tick the appropriate category to indicate the assessment of status of the species or habitat, for each country/region where appropriate, and provide a statement supporting the category selected.

| | Not appropriate | Recovered | Signs of recovery | No change | Declining | Lost | Insufficient information |
|------------------|-----------------|-----------|-------------------|-----------|-----------|------|--------------------------|
| UK | | | | | | | |
| England | | | | | | | |
| Northern Ireland | | | | | | | |
| Scotland | | | | | | | |
| Wales | | | | | | | |

Brief text description justifying assessment of status: (~ no more than 100 words for each country/region)

In Scotland further survey work has confirmed presence of the ant in some sites and larger populations in others. It is thought that most of these records arise from improved survey work only. However, the technical problems associated with surveying in pinewoods and the apparently mobile or temporary nature of the nests make population changes difficult to detect. There is no reason to suggest any decline since the SAP was written.

In England the one site has been lost since 1994 and the two known sites have shown a loss of one third of nests between 1997 and 1998. No confirm records have been made from the searches of historical sites outwith the Bovey Basin in Devon.

Field 5: Summary statement

Please provide an overview of plan implementation, including new factors affecting the species or habitat which will accelerate or constrain progress towards meeting of the targets. Where a factor results in new action(s) please cross-reference back to the relevant numbers under Field 3 and Table B.

All of the known sites in Scotland have been surveyed and shown to be more extensive than originally thought. Further survey work has identified new sites. The key sites in Devon have also been fully surveyed and both are monitored annually showing a dramatic decline at the major site (Chudleigh Knighton Heath). Surveys in other areas in southern England have not yet confirmed the presence of the ant. The main site in Scotland (Glenmore) has been monitored on an annual basis and elsewhere monitoring transects have been set up (Rothiemurchus) or are being developed (Mar, Rannoch (part of the site), Abernethy). Some important advances have been made on understanding the ecology of the species with research into feeding, nest foundation and linking, translocation of nests, production of sexual stages, and interaction with other ant species. Discussions have started on integrating this species with the Caledonian Pinewood HAP and the other pinewood ant species SAPs.

Field 6: Signing off

Please 'sign off' the form below to confirm that steering group members or key contacts have been consulted and agreed the information provided.

| Contact details | Lead Partner | Contact Point |
|----------------------------|-------------------------|---------------------------|
| Name | Dr Alastair Sommerville | Dr David Phillips |
| Organisation | Scottish Wildlife Trust | Scottish Natural Heritage |
| Assessment date (dd/mm/yy) | | 12 October 1999 |

Completed forms should be submitted to JNCC Biodiversity Information Service

Joint Nature Conservation Committee
 Monkstone House
 City Road
 Peterborough PE1 1JY
 Tel: 01733 562626
 Fax: 01733 555948
 E-mail: lpr99@jncc.gov.uk

Table A: Action Plan objectives and targets (Copiable table)

For each target please state how, if applicable, it has been disaggregated to the country level. Please insert the paragraph number, UK target and country-specific disaggregated target(s) into the table. Please tick the appropriate category to indicate progress against published and disaggregated targets. For each target please copy the table and detail the (existing or new [new paragraph numbers should run sequentially, under relevant headings in the published volumes]) paragraph number, target text and an assessment of progress.

| | | | | | |
|---|--|------------------------|----------------------|--------------------|---------------------------------|
| Objective/target (For new or revised targets please provide the new paragraph number and target text.) | 4.1 Survey to confirm the distribution of the species in the UK by the year 2000 | | | | |
| Country | Not appropriate | Target achieved | Some progress | No progress | Insufficient information |
| UK | | | | | |
| England | | | | | |
| Northern Ireland | | | | | |
| Scotland | | | | | |
| Wales | | | | | |
| Text description of target progress (separate for each country/region): | | | | | |
| Surveys carried out at Devon sites (1994-98), Glenmore (1996-99), Abernethy (1996-98), Rothiemurchus (1997) with new records at Rannoch and Mar (1997). Other historical English sites still needing surveyed. | | | | | |

| | | | | | |
|--|---|------------------------|----------------------|--------------------|---------------------------------|
| Objective/target (For new or revised targets please provide the new paragraph number and target text.) | 4.2 Maintain and, if possible, enhance the two main Devon populations and those in Glenmore through appropriate management. | | | | |
| Country | Not appropriate | Target achieved | Some progress | No progress | Insufficient information |
| UK | | | | | |
| England | | | | | |
| Northern Ireland | | | | | |
| Scotland | | | | | |
| Wales | | | | | |
| Text description of target progress (separate for each country/region): | | | | | |
| Management plans and the resultant management actions at the main sites Glenmore (non-native tree removal) and Chudleigh Knighton Heath (scrub clearance) have recognised the importance of the ant and have led to some positive management. Both the Devon sites are suffering from under-grazing and the shading out of nests while at one site (Bovey Heath) there is a threat from motor bike scrambling. The optimal management required for the ant still needs better definition. | | | | | |

| | | | | | |
|--|---|------------------------|----------------------|--------------------|---------------------------------|
| Objective/target (For new or revised targets please provide the new paragraph number and target text.) | 4.3 Develop and implement artificial rearing and translocation techniques by 2000 | | | | |
| Country | Not appropriate | Target achieved | Some progress | No progress | Insufficient information |
| UK | | | | | |
| England | | | | | |
| Northern Ireland | | | | | |
| Scotland | | | | | |
| Wales | | | | | |
| Text description of target progress (separate for each country/region): | | | | | |
| Work done by Exeter University has clarified mating behaviour and the establishment of colonies in the lab and the production of sexual forms in the field. One nest has been experimentally translocated to Paignton Zoo from Bovey Heath. No translocations in the field have yet been made. Because of the size of the populations this technique may not now be relevant to Scotland. | | | | | |

| | | | | | |
|--|---|------------------------|----------------------|--------------------|---------------------------------|
| Objective/target (For new or revised targets please provide the new paragraph number and target text.) | 4.4 Re-establish 10 self-sustaining populations in appropriate locations in Dorset or the New Forest by 20005 | | | | |
| Country | Not appropriate | Target achieved | Some progress | No progress | Insufficient information |
| UK | | | | | |
| England | | | | | |
| Northern Ireland | | | | | |
| Scotland | | | | | |
| Wales | | | | | |
| Text description of target progress (separate for each country/region): | | | | | |
| No work has yet been done on attempting to identify potential sites in England. | | | | | |

Table B: Proposed actions (Copiable table)

For each significant action please copy and complete the table below.

| | | |
|---|--|---|
| Published action/organisation(s) responsible (For new or revised actions please provide the new paragraph number and action text.) | 5.2.1 Seek to secure favourable management for this species at all existing sites, helping to prepare, and encourage the implementation of, management plans including protecting sites from damaging activities (ACTION: EN, SNH) | |
| Work plan/organisation(s) responsible (Summary of work plan agreed by the steering group, broken down by year if possible.) | Work plan being pursued by individual partners on the Steering Group, not yet to a specific timetable. The main site in Devon is managed by the Devon Wildlife Trust with guidance from Exeter University. The Forestry Commission manages the main site in Scotland with advice from the Scottish Wildlife Trust and others where sites have been protected from damage during tree felling. Other sites in Scotland are managed by the National Trust for Scotland, The RSPB and the Forestry Commission. The sites in private ownership are managed by sympathetic owners. Discussions have begun with most owners to monitor and manage their sites sympathetically. | |
| Action/workplan undertaken? (Please state yes or no.) | Yes | |
| Description of work taken and organisation responsible | Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken. | |
| <i>Output and timescale</i> | 1. Most known site managers have been approached by the Steering Committee. | Action by EU, SWT, SNH, EN |
| Constraints to action (Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.) | 1.Exact habitat requirements for the species have not been fully defined. 2. Lack of browsing on Devon sites. | |
| Action complete or ongoing? (Please state yes, not started, or ongoing.) | On going | |
| Next steps | Please outline future action/work including an indication of expected output, timescale and organisation responsible. | |
| <i>Output and timescale</i> | 1. Agreement on habitat management requirements (1999). 2. Integration of ant management with general habitat management (Scotland in particular) (2000 onwards). 3. Incorporation of habitat work into management plans (?). | ACTION BY All FC,RSPB,N TS etc All |

| | | |
|---|---|--|
| Published action/organisation(s) responsible (For new or revised actions please provide the new paragraph number and action text.) | 5.4.1 Ensure the provision of detailed guidance to site owners and managers regarding the management requirements of the species and its habitat. (ACTION: EN, FA, SNH) | |
| Work plan/organisation(s) responsible (Summary of work plan agreed by the steering group, broken down by year if possible.) | Detailed guidance has been given to the managers of the main site in Devon (The Devon Wildlife Trust) by Exeter University and the managers of the main site in Scotland (Forestry Commission) by the Scottish Wildlife Trust, Aberdeen University and others. All other known site managers in Scotland have been approached. | |
| Action/workplan undertaken? (Please state yes or no.) | Yes | |
| Description of work taken and organisation responsible | <i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i> | |
| <i>Output and timescale</i> | <i>1. Research work has been commissioned by English Nature, Scottish Natural Heritage, Aberdeen University and the Scottish Wildlife Trust on various aspects of the species habitat requirements (see below).</i> | <i>Action by</i> |
| Constraints to action (Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.) | <ol style="list-style-type: none"> 1. Still not enough known about the species feeding requirements, reproduction, nest formation and interaction with other species of ant to be able to provide full information. 2. Limited manpower available in Scotland to visit all the sites and supply managers with detailed information. 3. Potential conflict with management prescriptions for the general habitat and/or the other species living there. | |
| Action complete or ongoing? (Please state yes, not started, or ongoing.) | On going | |
| Next steps | <i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i> | |
| <i>Output and timescale</i> | <ol style="list-style-type: none"> 1. Compilation of best advice for land managers (1999) 2. Remaining managers approached (2000 onwards) | ACTION BY Steering Group. ? |

| | | |
|--|--|--|
| Published action/organisation(s) responsible (For new or revised actions please provide the new paragraph number and action text.) | 5.5.1 Promote research to identify the habitat requirements of this species, especially into the colony structure and formation, genetic variation and integrity of colonies, competition with other ants, asexual reproduction, artificial rearing and translocation techniques. (ACTION: EN, SNH) | |
| Work plan/organisation(s) responsible (Summary of work plan agreed by the steering group, broken down by year if possible.) | <ol style="list-style-type: none"> 1. Investigation into the feeding requirements. 2. Observations and experimentation on the effects of shading and supplementary feeding on sexual stage production. 3. Identification of the nature and location of nests. 4. Observations on the formation and mobility of nests. 5. Clarification of the effects of shading on nest viability. 6. Experiments on artificial rearing. 7. Observations of interactions with other ant species. | |
| Action/workplan undertaken? (Please state yes or no.) | Yes | |
| Description of work taken and organisation responsible | <i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i> | |

| | | |
|--|---|---|
| <i>Output and timescale</i> | <ol style="list-style-type: none"> 1. Initial observations on feeding and aphid attending. 2. Various work on artificially shading nests and observing nests for sexual stage formation. 3. Description of the characteristics of nests. 4. Observations on nest locations and changes. 5. Observation of the reposes to nests being shaded. 6. In lab work on establishing nests and keeping colonies going. 7. Observations on interactions with other ant species in the field. | <p>Action by SWT</p> <p>EU, SWT AU EU, SWT AU, EU, SWT EU EU, SWT</p> |
| Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i> | <ol style="list-style-type: none"> 1. Technical difficulties of field work with invertebrates. 2. Ecological work taking a long period before information can be used in a practical manner. 3. Limited resources in terms of skilled observers in the field. | |
| Action complete or ongoing? <i>(Please state yes, not started, or ongoing.)</i> | Ongoing | |
| Next steps | <i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i> | |
| <i>Output and timescale</i> | Review of present programme of research and identification of new programme (1999). | ACTION BY Steering Group |

| | | |
|--|--|---|
| Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i> | 5.5.2 In co-ordination with other organisations, survey all former and existing sites in Scotland to ascertain the current status of the species in the country (ACTION: SNH) | |
| Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i> | <ol style="list-style-type: none"> 1. Re-examine all known sites in Scotland. 2. Survey in detail the main existing sites for the number of nests present. 3. Survey the most recent extinct sites in Scotland, New Forest, Dorset, Cornwall etc. | |
| Action/workplan undertaken? <i>(Please state yes or no.)</i> | Yes | |
| Description of work taken and organisation responsible | <i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i> | |
| <i>Output and timescale</i> | <ol style="list-style-type: none"> 1. Sites in Scotland surveyed (1994-99) 2. Main sites in Scotland (1996-99) and Devon (1997-99) surveyed in detail. 3. Some further sites surveyed in Scotland(1997) | <p>Action by SNH,SWT, AU SWT, AU, EU SNH, SWT</p> |
| Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i> | <ol style="list-style-type: none"> 1. Physical difficulty of locating nests in complex habitats. 2. Apparent 'mobility' of nests making population estimates difficult. 3. Lack of resources to survey sites in detail particularly against other priorities. 4. Not enough experts to survey apparently lost sites effectively. | |
| Action complete or ongoing? <i>(Please state yes, not started, or ongoing.)</i> | On going | |
| Next steps | <i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i> | |

| | | |
|--|--|--|
| <i>Output and timescale</i> | 1. Collate the available information and estimate the value of further survey work. | ACTION BY Steering Group |
| Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i> | 5.5.3 Encourage monitoring of existing populations and identify any further threats to the species. (ACTION: EN, SNH) | |
| Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i> | 1. Monitor populations in the key site in Scotland (Glenmore) and in England (Chudleigh Knighton Heath). 2. Monitor populations in other sites where this is practical. | |
| Action/workplan undertaken? <i>(Please state yes or no.)</i> | Yes | |
| Description of work taken and organisation responsible | <i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i> | |
| <i>Output and timescale</i> | 1. Glenmore nests marked (c 420 nests) and monitored (1997-99). 2. Chudleigh Knighton Heath marked (39) and monitored (1997-99); Bovey Heath surveyed (3) and monitored (1997-99). 3. Abermethy nests identified (60) and studied. 4. Rothiemurchus nests identified (50) and transect marked out. 5. Sites at Carrbridge(12), Rannoch (6) and Mar (2) surveyed. | Action by SWT EU AU, RSPB SNH SNH |
| Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i> | 1. Technical difficult in re-finding nests and marking nests. 2. Resources to undertake annual monitoring. 3. Changing nature of the habitat and the difficulties of understanding what the changes represent. | |
| Action complete or ongoing? <i>(Please state yes, not started, or ongoing.)</i> | On going | |
| Next steps | <i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i> | |
| <i>Output and timescale</i> | 1. Re-evaluation of monitoring sites and techniques. 2. Identification of resources and sites for on going monitoring programme. | ACTION BY Steering Group Steering Group |