Hampshire Biodiversity Information Centre

www.hants.gov.uk/biodiversity/hbic

HBIC Quality Assurance Policy

The Hampshire Biodiversity Information Centre seeks to maintain the highest standards in biological survey, data management and analysis for its users. It has developed a number of policies, protocols and procedures, in line with those agreed by the National Biodiversity Network (NBN) and the Association of Local Environmental Records Centres (ALERC), to ensure consistent delivery of these high standards.

1. IMPARTIALITY

1.1 HBIC is expected to act as an unbiased source of data at all times. Interpretation of the data will be limited to a valued assessment of the importance of a site or species against known criteria, such as the Nature Conservation Review criteria, SINC criteria, and notable species criteria, to allow the site or species to be placed within the national, county or local context. Opinions will not be given, for example, on the impact of development on a site or species.

2. MANAGEMENT STRUCTURE

2.1 The HBIC Steering Group sets policies for HBIC for implementation by staff. It comprises key data users and data suppliers who are encouraged to comment on quality of service so that issues can be foreseen and addressed.

3. PERSONNEL EXPERTISE & RECRUITMENT

3.1 Expertise, skills and experience are used as the key criteria in the recruitment of all staff. All staff are expected to have experience of ecological survey and data management commensurate to their grade and role whilst contract staff and 'in-house' volunteers are expected to have a relevant scientific degree and sufficient relevant experience to undertake the tasks required in a thorough and competent manner.

3.2 All staff will be expected to work towards and attain full or associate membership of the Chartered Institute of Ecology and Environmental Management (CIEEM), and therefore abide by its Professional Code of Conduct.

4. TRAINING

4.1 All staff and volunteers are given appropriate training in areas of ecological survey and data management where there may be gaps. Staff have a system of regular performance appraisal and are encouraged to attend professional training courses run by CIEEM and other institutions to meet training needs. CIEEM members are required to follow a system of Continuing Professional Development.

5. EXTERNAL QUALITY ASSURANCE

5.1 HBIC contributes to the development of standards in biological recording through the National Biodiversity Network and the Association of Local Environmental Records Centres. ALERC run an accreditation programme agreed with Natural England. HBIC were accredited in May 2016.

5.2 HBIC supports a number of specialist Species Recording Groups in Hampshire which between them cover the key taxonomic groups. HBIC assist the groups in developing validation & verification protocols to ensure high quality recording.

6. GEOGRAPHIC ACCURACY OF SITE BOUNDARIES

6.1 Site boundaries of biosites (sites for which HBIC hold detailed survey information) and Sites of Importance for Nature Conservation are drawn on OS MasterMap base maps at the lowest scale possible for accuracy for the HBIC Survey programme and the SINCs monitoring programme. This does not apply to statutory sites, where the scale is as drawn by the statutory agency responsible.

6.2 BioSite and SINC boundaries (polygons) are digitised on GIS to OS MasterMap for greatest accuracy. Historically they were generally digitised on the GIS at a scale of 1:10,000.

6.3 The mapping base used by HBIC for all GIS purposes is currently produced by Ordnance Survey.

7. COMPUTER SOFTWARE

7.1 HBIC currently uses the Recorder 6 biological database (on SQL Server) which has been developed by the statutory agencies and HCC. Recorder 6 is a national standard, in three respects:

- Nomenclature: the species dictionary is centrally maintained, ensuring the correct nomenclature is used, and species names are spelt consistently and correctly.
- Species status: the national and international statuses of species are centrally maintained, allowing HBIC to report accurately on the national and international status of species recorded in Hampshire.
- Grid reference validation: the software has an internal check on grid reference at data entry, preventing any gross geographical errors in grid reference allocation.

7.2 HBIC has developed a detailed data entry protocol for the entry of sites, habitats, species, personnel and literature data onto the Recorder 6 database whereby the protocol includes minimum standards for valid records. If source data fails to meet the minimum standard it is not entered.

8. VALIDATION AND VERIFICATION OF SPECIES RECORDS

8.1 Species records collected by HBIC Field Ecologists are entered by them into Recorder 6. This reduces errors resulting from handwriting or interpretation problems. A number of checks have been developed to reduce errors during the species data entry process, by the use of Survey Recorder (a program based on Excel), which allows direct import into Recorder, the main survey database. If a notable species is entered users are prompted for more accurate grid references, which will both enable checking in the field and highlight the record as a notable species. A list of common mistakes is constantly being updated- this allows further prompts for example if "*Campylopus pilifer*" is entered a message pops up asking if "*Carex pilulifera*" was actually meant.

8.2 Where data is entered into Recorder from external reports, identification of species is verified by HBIC staff. Professional judgement is used to assess the probable accuracy of records, and the skills of the surveyor. If there is any doubt as to the accuracy of a record of a rare species, the record is referred back to the surveyor in the first instance, and then to an expert in the taxonomic group concerned (e.g. the County Recorder, national recorder, Natural History Museum or Kew Gardens), for comment, field checking or specimen examination.

8.3 Doubtful or rejected records are tagged as 'unconfirmed' in the Recorder database or "overwritten" with the preferred name, with details of the doubt or reasons for the rejection of the record in the taxon comments field. This procedure is used to ensure that the original rejected record cannot appear in any outputs, and an audit trail maintained.

8.4 All data held for a particular taxonomic group will be periodically reviewed by a specialist in that taxonomic group, normally via the County Recorders. Each year, any new flora records entered into Recorder from any source are sent to the BSBI recorders who check through the data before adding them to the BSBI Database, and errors brought to the attention of HBIC Staff.

8.5 HBIC has set up a number of data exchange agreements with various species recording groups. Each specialist group is encouraged to hold their data on compatible software such as MapMate and exchange data regularly with HBIC. The species groups are responsible for validating their own records. HBIC will undertake a sample check of grid reference and other key data fields before copying the data onto a separate version of MapMate held by HBIC which is able to ignore duplicate data.

8.6 If errors are found within datasets provided by the species recording groups, then they are logged in the first instance onto an 'erroneous records' spreadsheet, which includes the unique key, or database number. This list is used to strip out records when building the Notable and Protected species layers, and is periodically sent to the relevant data providers who are expected to either correct the record, ask the original recorder to correct the record and re-send or to delete the record.

8.7 If records are found in the notable and protected species GIS layer which have been correctly identified and recorded, but are **not** notable for another reason (for example where the Nationally Rare Box *Buxus sempervirens* has been planted) the unique keys are added to the same list, but with the delete field completed. This sub-list is used to strip out records when building the Notable and Protected species layers, but does not affect records within the databases. When new GIS layers are built from the databases, they are run through NBN Record Cleaner which supports validation and verification by a checking the data against a set of rules.

8.8 If HBIC are sent species records directly, they are not entered but sent directly to the County Recorders, often via Living Record. If a County Recorder does not cover this taxonomic group, records will remain on Living record until such a time as one comes forward, or they can be provided to the National Scheme and then downloaded to HBIC. Records will not be accepted if they have not gone through the appropriate channels. Records from local expert entomological recorders can be accepted for the less well known groups. When a new County Recorder comes forward, all new records are provided to them, and when checked are accepted back to HBIC. In some cases a national scheme takes the place of a county recorder, for example BWARS take all hymenoptera data collected in Hampshire, and the verified data is periodically downloaded from the NBN gateway. Such schemes must demonstrate their data verification and checking processes to HBIC before they can take this role.

9. VALIDATION OF HABITAT DATA

9.1 HBIC operates a set of validation rules for the capture of habitat data to GIS such that only habitat records which pass the following quality threshold will be captured to the GIS system:

- Date - accurate to at least a single year, and preferably month and day.
- Classification system - a recognised habitat classification system is used, or the data can be translated without ambiguity.
- Accuracy of habitat interpretation - there are no doubts about the competence of the surveyor in relation to the survey and/or classification system in use.
- Scale of mapping - the habitat has been mapped at a scale consistent with data capture at the 1:10000 scale or greater and with a minimum polygon size normally of 0.25 ha
- Mapping base - the habitat has been mapped onto the OS base or with a sketch map relating to this.
- Accuracy of habitat boundary mapping - habitat boundaries have been mapped with a maximum geographical displacement normally of 10 metres, projected onto a horizontal surface. The latest aerial photographs are used to aid the plotting of habitats on the GIS wherever possible.

9.2 Habitat records held by HBIC which are assessed as failing one or more of these validation rules will be marked as such on the paper copy and not captured electronically.

9.3 The HBIC Habitat Data Capture Procedure can be referred to for more information on the habitat data capture process.

10. SITES OF IMPORTANCE FOR NATURE CONSERVATION (SINCs)

10.1 It is the function of HBIC to review and develop the SINC criteria in consultation with Natural England, the Hampshire and Isle of Wight Wildlife Trust, the County Council and with the species recording groups with regard to notable species criteria, and then to identify all land within Hampshire which meets the SINC selection criteria. HBIC advises data users, especially the local planning authorities, on the comprehensiveness of survey data available for particular geographical areas, or for particular habitats, individual species or taxonomic groups. HBIC may also advise users on the additional surveys required to assess an area, habitat or species for a specified purpose.

10.2 HBIC does not seek to record the absence of species from a particular location, as this is rarely possible to prove beyond reasonable doubt, however it will record that a species that has 'not been found' when efforts have been made to relocate it, such as for Great Crested Newts or species for which the SINC is designated.

10.3 HBIC will, only with the agreement of landowners, pass on information about SINCs requiring management to relevant project officers (e.g. the Hampshire and Isle of Wight Wildlife Trust Management Advisors.)

11. VALIDATION OF OUTPUT

11.1 All data searches undertaken by HBIC for users are checked for accuracy before release to the user, particularly with regard to notable species records

11.2 The SINCs database with specific protocols is used to keep an audit trail of status changes and boundary changes on SINCs, and to validate the SINCs GIS dataset which is regularly supplied to service agreement holders.

11.3 Survey Reports compiled by HBIC are double checked thoroughly for content and accuracy by staff before release to the requestor or landowner.