Forest Protection Survey Program

Survey Guideline - Coupe Habitat and Sign Survey (V5.0)

VICTORIA State Government | Environment, Land, Water and Planning

Acknowledgements
Jemma Cripps, Louise Durkin, and Jenny Nelson, Arthur Rylah Institute for Environmental Research

Author
Ryan Chick
Jamie Molloy. Project Manager Forest Protection Survey Program

V5.0 update: Jamie Molloy Program Manager, Forest Protection Survey Program

Photo credit
Cover photo: Jim Reside Wildlife Unlimited 2018

Accessibility

If you would like to receive this publication in an alternative format, please telephone the DEECA Customer Service Centre on 136186, email customer.service@delwp.vic.gov.au, or via the National Relay Service on 133 677 www.relayservice.com.au. This document is also available on the internet at www.delwp.vic.gov.au.

Contents

Coupe Habitat and Sign Survey (CHASS)

Context

The targets of the CHASS are those where locating these species or values would result in changes in the way the area is managed. These species are listed in the SOP. The surveyor is required to be familiar with the target species, habitat values and threatened communities prior to conducting the CHASS survey.

CHASS results may be used as one of many inputs in prioritising further surveys. A CHASS may be the only survey that some sites receive and not every site may be subject to further targeted surveys.

CHASS results may be used for a follow up confirmation survey, or to inform further survey effort, at the direction of DEECA e.g. Anabat or harp trap survey for potential bat roosts.

Objectives

To identify habitat and signs of flora and fauna that may trigger the need for a further targeted survey.

To conduct a visual survey of habitat values and flora and fauna signs on a site to identify features indicative of potential presence of threatened species and communities.

Duration

For two field surveyor each CHASS will take a maximum of two days per site to complete, depending on access and on-site conditions. Most sites will require less than one day to conduct this survey.

Surveyor requirements

A field survey team will consist of no less than two people.

The team must have the ability to recognise and record the survey targets on the CHASS Datasheet/forms provided, including:

- identification of carnivore and herbivore scats, bones, feathers and/or other target species signs
- identification of suitable habitat for species with prescriptions
- determining the possible or probable presence of Threatened Vegetation Communities
- Owl/raptor roosting and nesting sites.

Equipment list (specific to this survey technique)

- ☐ Binoculars
- ☐ Range finder
- ☐ Diameter tape
- ☐ Basal Wedge
- ☐ GPS unit
- ☐ Waterproof field datasheets/forms (CHASS Datasheet/forms)
- ☐ FPSP/CHASS field/photo guide
- ☐ Sample bags (for scats, plants, etc.)
- ☐ Digital or other Camera (with carry case, spare batteries, spare storage card) capable of including georeferencing data with each photo

Conducting the survey

Surveyors are provided with the detection probabilities of the target species for each survey technique. Surveyors are to target their surveys to those species with the highest detection probabilities in each site. The species with higher detection probabilities aid in determining the target species most likely to be detected by the survey technique and will thus inform survey parameters such as preferred habitat for survey, bait type, camera settings, etc.

Fill out all required metadata information in the header of the CHASS Datasheet/forms prior to start.

Surveyors are required to record a track log of the survey effort from the start to the end of surveying within each site, for each day of survey. The track log is to be converted to a GIS shapefile and submitted as a shapefile with attributes as outlined in the FPSP Standard Operating Procedure (note a shapefile template is provided by FPSP).

The Surveyor is responsible for ensuring the site is adequately surveyed for the target features listed. Survey may be conducted up to 50 m outside of the survey area or site for the target features listed.

Surveyors are required to take georeferenced photographs of all reported observations and submit this data with other survey results.

Using your knowledge of the prescription triggers for the survey targets, collect enough notes and photos to enable a determination of whether a prescription applies. For example, an active forest owl roost will require photos that are evidence of suitable habitat and repeated use or activity at the site. This may include different-aged observations of whitewash, pellets and prey items, habitat components such as roost trees and understorey, the position in the landscape, etc. Enough evidence should be provided so the site can be re-visited if required.

Samples of signs (e.g. scats, pellets, eucalypt fruit) can be removed from the field for later identification if identification in the field or by a photo, is not possible, or if further analysis is required e.g. prey items within an owl pellet. However, analysis and identification of such signs is up to the surveyor. Samples will not be sent to DEECA for identification.

Use the comments column in the datasheet/forms to record any further site identifying information that may assist in relocating the observation in the future.

Upon completion of the survey, fill in any remaining blank fields in the datasheet/forms.

If completing the survey just for that day (i.e. the survey itself is incomplete), then after filling in the remaining header fields also write “SURVEY NOT COMPLETE” as the last entry on a new line in the Comments field.

If returning to complete the CHASS on another day, then please use a new data record for each day.

Surveys for Broad Toothed Rat sign

Preferred habitats include alpine and subalpine heathlands, grassland adjacent to boulder outcrops, swamps, sedgelands, coastal grassy or shrubby dunes, and sometimes forests with grassy understories.

The survey method involves visual searching for runways and then for scats within runways.

Runways may be identified by narrow tracks of flattened groundcover and often containing fresh grass clippings when in use.

Searches for runaways should:

- target patches of sedge and/or rushes that typically grow in ephemeral wet areas, and
- target terraced areas along the edges of streams.
- avoid treed areas where predators can hunt from perches.

Scats are distinctive and contain undigested grass cuticles and fibres. Scats may be green and moist when fresh, brown or pale straw colour when older. Scats are also generally very numerous when present. Presence of scats of any age shall be recorded as an observation.

Observations of trees where DBHOB >2.5 m

Measurements of trees with a stem diameter >2.5 m will be conducted as diameter at breast height over bark (DBHOB) at 1.3m above ground, see diagram below. Trees with a DBHOB >2.5 m are protected in Victoria and must be recorded in the data sheet.

Where trees with DBH >2.5m are being recorded:

1. please select “Trees >2.5m DBH” in the “ScientificName” column
2. there is no requirement to record cover or count for records of trees >2.5DBH
3. then record the actual DBH measurement in centimetres in the “DBHOB (cm)” column,
4. then record whether the tree is alive or dead in the “Is Live?” column,
5. then record the “Tree Species Description”.
6. The “Tree Species Code” data will then automatically populate.
7. Then record an additional separate record of each tree where DBH is >2.5m recording the **scientific name** of that tree. Include “cover” and “count” in this record if the record is within a quadrat.

Surveyors are required to take a georeferenced photo of the diameter tape measure on the tree trunk indicating the measurement of the DBHOB, and to record the easting and northing of the location in the datasheet/form.

Vegetation Observations

Vegetation Community and Habitat Observations

Surveyors are required to record any instances within or adjacent to sites where the presence of the following vegetation communities/values are observed in the field.

The extent of vegetation communities and habitats of interest is to be surveyed and mapped in the field at the time of observation. To map the extent, determine and record the extent within the site and up to 50 m outside the site boundary, recording data points at around minimum 25 m intervals around the perimeter of the community or habitat (where practicable). Estimate the extent where it is not practicable to map on ground. Extent data are to be submitted as a GIS polygon shapefile for each discreet vegetation community or habitat recorded and shall be linked to the observation in the datasheet/form and in the attributes table of the shapefile via the Polygon ID field.

Record, in the observation datasheet/form, an easting and northing for the estimated centre point of a vegetation community polygon.

Surveyors are required to record and submit several georeferenced photos of key confirming identifying features of the vegetation community.

Old Growth Forest

All Old Growth (OG) Forest in Victoria is protected. Surveyors are required to be familiar with the requirements for assessment of OG as outlined in the *Survey Guideline - Old Growth Forest*. If old growth is suspected to be present, then record this in the datasheet/form.

Box Ironbark

These forests are characterised by a canopy of box, ironbark and gum-barked eucalypts, growing to 25 m in height, over a sparse understorey of wattles, small-leaved and prostrate shrubs, herbs and grasses (EVC

61). The main tree species are Forest Red Gum (*Eucalyptus tereticornis*), Yellow Box (*E. melliodora*), Coast Grey Box (*E. bosistoana*), Red Ironbark (*E. tricarpa*), Red Box (*E. polyanthemos*), Blue Box (*E. baueriana*) and Yellow Stringybark (*E. muelleriana*). This vegetation community occurs on gently undulating rises, low hills and peneplains on infertile, often stony soils derived from a range of geologies.

Heathland

Heathlands are characterised by a dense layer of small-leafed shrubs, usually1-2 m tall, over a ground layer of sedges, coarse lilies, rope-rushes, prostrate shrubs and herbs. In most places there are occasional small, short-trunked, spreading trees, to 15 m tall, which may form a sparse canopy on deeper soils. Three Ecological Vegetation Classes (EVC) are listed in the Management Standards and Procedures: Wet Heathland (EVC 8), Clay Heathland (EVC 7) and Riparian Scrub Mosaic (EVC 191).

Montane Riparian Thicket

These stands contain at least 40 % canopy cover of Mountain Tea-tree (*Leptospermum grandifolium*). Key understorey species include Mountain Pepper (*Tasmannia lanceolata*) and a range of sedges, rushes and ferns. It typically occurs in montane and subalpine areas, often within Montane Damp Forest along drainage lines, streams with gentle gradients and in-soaks at the heads of gullies on south-facing aspects (EVC 41). While most areas of Montane Riparian Thicket will already be protected within SPZs, mapping of the extent of any patches of this vegetation type that are contained within the gross area of sites will be required to check this assumption and identify any additional areas requiring protection.

Rainforest and Cool Temperate Mixed Forest

Warm Temperate Rainforest (EVC 32) and Cool Temperate Rainforest (EVC 31) are in eastern Victoria. There are extensive, existing processes for identifying and delineating rainforest patches, and these will continue to be used, rather than forming part of the forest protection survey program. Surveyors are required to record and report observations of Rainforest and Cool Temperate Mixed Forest (even if the upper canopy comprises mostly eucalypts) but are not required to map the extent unless this may be completed within the available time, and it does not distract from surveying for target species and vegetation communities. Rainforest may however be specifically surveyed for target or threatened plant species.

Glossy Black Cockatoo Habitat

Cones of the Black She-oak (Allocasuarina littoralis) are the main food source of the Glossy Black Cockatoo in Victoria. Forest stands containing Black She-oak are therefore potential foraging habitat for this species, with the cockatoos preferring mature, sparsely distributed trees 2–10 m tall. Remnants of chewed cones and debris on the forest floor beneath these trees are an indication that cockatoos have been present. Glossy Black Cockatoos are generally considered to breed between March and August. They nest in large, old hollow-bearing trees and are known to use vertical or near-vertical spouts in senescent or dead trees. Nest sites are commonly clustered or grouped in the landscape.

If conducting flora surveys in the East Gippsland FMA, surveyors are required to record any instances within or adjacent to sites where the presence of a Black She-Oak stand (Glossy Black Cockatoo habitat) is observed in the field.

The definition of a Black She-oak stand is a group or groups of trees with a basal area equal to or greater than 10 m2 in an area of 0.25 hectares.

If initial observations indicate presence of a potential stand the Surveyor is required to determine whether the stand meets the definition by mapping the perimeter of the stand and measuring the basal area/hectare within the stand.

The Surveyor is required to map the extent of the stand using a GPS. Mapping is to consist of recording data points at minimum 25 m intervals around the perimeter of the identified habitat where it is on-site or up to 50 m off-site. Habitat extent data are to be submitted as a GIS polygon shapefile and shall be linked to the

species observation in the datasheet in the attributes table of the shapefile. Surveyors are required to submit photos of key identifying features of the habitat.

Data reporting

Data requirements are outlined throughout this guideline and in the datasheet/forms. Complete all required fields on the datasheet/form for each target observation.

In summary:

- Record signs and observations of flora, fauna and habitat or other values that may trigger further surveys or a requirement for protection and indicate in the comments field any recommendations for further targeted survey
- Record your observations in the ObsAttributes page, with each observation being entered on a separate row.
- Record any further site identifying information that may assist in relocating the observation in the future.
- Please use a new datasheet/form for each day
- Trees with a DBHOB >2.5 m are protected in Victoria and must be recorded.
- Record and map specified vegetation communities and habitats.
- Record a GPS track log for all survey work on site and submit as a Track Log shapefile.
- Record the extent of vegetation communities and habitats and submit as a Polygon shapefile.
- Record and submit georeferenced photos.
- Please enter the survey details (e.g. times and locations of the survey taking place) into the SurveyDetails page. Use the DataFieldsExplained page to help you enter the correct details.
- Ensure the SiteID is entered correctly according to the survey package and in the format of xxx-xxx-xxxx
- Ensure all mandatory fields are completed and in the correct format, failure to do so will result in submitted data being returned for review.
- In the ObsAttributes page, record the Sign of the species in the Sign column, and the animal it may apply to in the Comments column.
- A comprehensive list explaining the data entry fields and whether they are mandatory or optional can be found in the DataFieldsExplained page.
- Ensure the Sign, VegetationCommunities, ScientificName field in ObsAttributes is entered correctly according to the TaxaIDLookup.
- If recording multiple signs of a species or habitat in ObsAttributes, record the main sign type in Sign column and then any additional signs in the Comments column.
- When recording observations of species, record the scientific name first. Note that all FPSP specific observation types e.g. animal sign, vegetation community and habitat types, are included in the scientific name look up table.
- The common name and VBA TaxonID will be automatically populated. This will account for different species that have the same common name.
- When recording an observation, select “NotApplicable” in those observation fields that are not relevant e.g. if recording a vegetation community observation e.g. Old Growth, then select “NotApplicable” in the Tree Species Description and Scientific Name fields.
- Further data that may be recorded if encountered includes:

- Signs of historic or cultural heritage
- Evidence of illegal activity

Please Note: Surveyors are expected to submit highest quality data. Please ensure you double check your data entry before submitting data. Submitting incorrect or incomplete information will result in a delay to reporting and may impact on the program outcomes.