Environment Programs

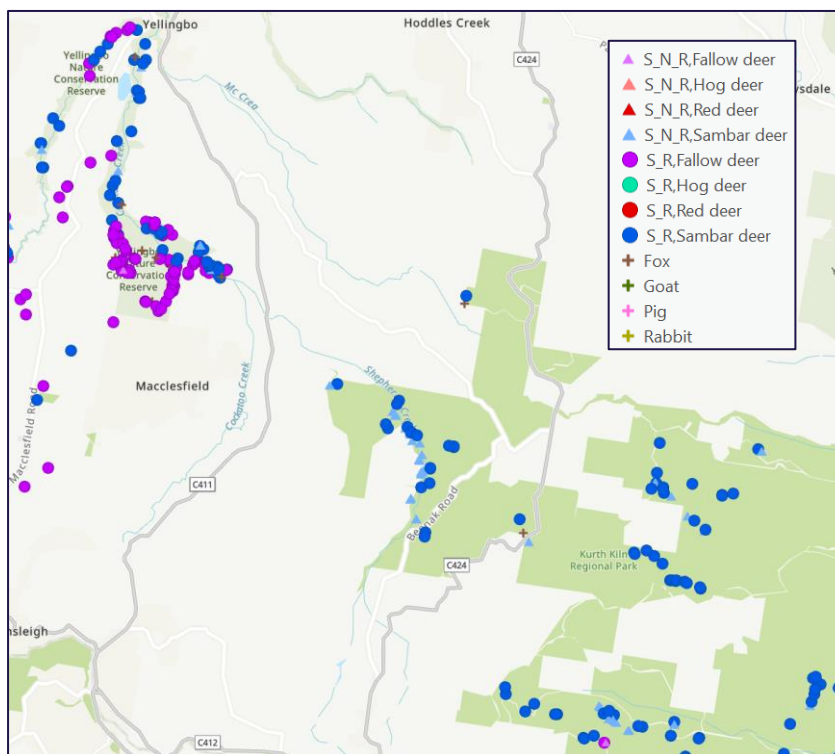GIS Data Schema - Animal Control Shoot Point Data Shapefile

Data Schema

This standard must be used for ground shooting operations undertaken for projects funded by the DEECA Deer Control Program (DCP), and Protecting Biodiversity (PB), or any other DEECA-funded programs that request point data for deer or other species.

This document was prepared for the Deer Control Program, so there are references throughout the document to deer. Please apply the same principles to the species you manage.

Deer shot and deer observed are to be recorded and reported using the Shapefile template provided - '**ShootPointData_SHP_Template'** (a point shapefile).

Example of mapped deer control and sighted points shapefile showing 'Shot and Recovered' deer, 'Shot but Not Recovered' deer plus other species:

File naming convention

Please provide files named as follows:

Program abbreviation _ Project ID (number only) _ Delivery agent (name or abbreviation) _ ShootDataPoints _ Financial year (4 digits, no hyphen)

e.g. DCP_51123_Manningham_ShootDataPoints_2526

Spatial data and coordinate system

The map projection of the Shapefile template should be set to the Victorian Government standard: **GDA 1994 (datum) / VICGRID94 (projection).**

Coordinates: X (longitude) and Y (latitude) in decimal degrees, to **six (6) decimal points** minimum for accuracy (aim for GPS +/- 5m), e.g. 145.55121 (x), -37.23278 (y).

Points and attribute data

The schema supplied on the following page is the approved data format for the collection of ground shooting and sighting data as part of deer control activities.

A location waypoint is to be recorded for each individual deer shot and any deer (or group of deer) sighted but not shot.

Please record specified data where possible and submit with your annual report, as a Shapefile or Geodatabase.

Note that when supplying your Shapefile or GDB, the data fields (attributes) do not need to be in the same order as in the Shapefile template or data schema below, but it is preferable that they have the same Field Names and must match the data type (i.e. Text, Numeric etc) for our internal data processing.

You may add extra fields for your own data purposes, such as internal project ID or contractor name or IDs, property address, weather, whether deer was pregnant or lactating, or any other relevant information.

Note that OBJECTID or FID and SHAPE (Geometry) are created automatically by the GIS system when creating the file. Please ensure that the geometry type is POINT.

Data is to be supplied using the Shapefile template fields in '**ShootPointData_SHP_Template**'.

Tracklogs

No data schema has been provided for this.

It is expected that the tracklogs will show where the controller has travelled whilst undertaking search and control.

Tracklogs should include the date, start time and end time, may include a controller's name / organisation, and the distance should be able to be calculated for that night. It can be beneficial to record a "night number" (operation number), as control often covers two dates with works occurring across midnight.

Tracklogs should be buffered by 100m (either side) and merged with 2km buffers of any deer shot to create Animal Control Bio2037 datasets.

Data submission

These datasets are to be submitted after completion of the activity, with the annual (financial year) acquittal reporting.

The point records of shot (not just observed) deer are used to create the Bio2037 Animal Control polygons, by buffering the deer points by 2km, buffering track logs of people, vehicles and drones searching for deer by 100m, and merging buffers for the same species with the buffered track logs.

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Ground Shooting point data schema

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
yearActDel	**Year Activity Delivered:** The financial year the activity was delivered. Note: when using the Shapefile template 2019 – 2020 should be recorded as 1920.	2526, 2627 etc	Numeric	Long/Integer	No
fundSource	**Fund Source:** The name or identifier of the program funding delivery.	Deer Control Program 25-27 Protecting Biodiversity Other options: 　Name of State Govt funding program 　Name of Federal Govt funding program 　Local Government 　Philanthropic 　Corporate 　Private funding 　Nil	Text	255	No
projectID	**Project ID:** Being the DEECA GEMS grant system opportunity code provided to you for your project	e.g. OPP-12345	Text	255	No
projectNam	**Project Name**	e.g. Deer Control Alpine Region	Text	255	Yes Optional

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
Op_Num	**Operation Number:** internal identifier to indicate how many operations have been delivered. This could be a code or a number and year. e.g. for night 3 of an operation "3 – 2022/23"	Free text	Text	255	Yes Optional
DeliverAg	**Delivery Agent:** The main organisation responsible for delivering the activity. This may or may not be the same organisation doing the on-ground works.	Catchment Management Authority Community Group DEECA Government Agency Landcare Local Council Management Committee Non-government Org Not for Profit Org Parks Victoria Private Land Manager Research Organisation Traditional Owner Trust for Nature Volunteers Water Corporation Other	Text	255	No

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
DelivAgNam	**Delivery Agent Name:** The name of the organisation responsible for delivering the activity.	e.g. Knox Council, DEECA NEP Gippsland, Yarra Landcare Network, Parks Victoria etc.	Text	255	No
OnGrndAg	**On Ground Works Agent:** The persons or organisation doing the on-ground works. This may or may not be the same as the Delivery agent. Equivalent to PV attribute "Shooter Type"	Contractor Landowner Traditional Owner Managing organisation staff Volunteer/community group	Text	255	No
OnGrndAgNa	**On ground works agent name:** The name of the organisation doing the on-ground works. Equivalent to PV attribute "Shooter Organisation".	e.g. Wascaly pest animal control, Parks Victoria staff, DEECA staff etc.	Text	255	Yes Optional
Shoot_Name	**Shooter Name:** Name of shooter Equivalent to PV attribute "shooter_na" or "Shooter Name"	e.g. John Doe	Text	255	Yes Optional
X (or **Longitude**)	**X:** GIS location co-ordinate Longitude or X axis in decimal degrees. 6 decimal places.	e.g. 145.123456 (decimal degrees)	Float		No

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
Y (or **Latitude**)	**Y:** GIS location co-ordinate Latitude or Y axis in decimal degrees. 6 decimal places. NB – latitude is negative as we are south of the equator. Please do not forget the "–"	e.g. -37.123456 (decimal degrees).	Float		No
PointLoc	**Point Location:** Where the GIS point was recorded - either from where the shot was taken (Shot), from where the deer was seen (Observation), or where the carcass fell (Carcass). Carcass records are preferred. (We recommend you take a photo as evidence, but we do not need to receive these) If point location is Shot or Observation, some data fields may be unknown (e.g. sex or age class). For observations only (no shot taken), record the location of the observation position. Record the number of deer observed under **NumAnTreat**.	Carcass Shot Observation	Text	255	No
SearchTyp	**Search Type:** Mode of search at the time of observation during a control operation.	On foot Vehicle Boat Other	Text	255	Yes

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
ObsMethod	**Observation Method:** How the deer was detected.	Visual – Naked eye Visual – Spotlight Visual – Thermal (monocular) Remote – Drone Remote – Drone thermal	Text	255	Yes
RecordTyp	**Record Type:** Action related to record. Recovered means harvested or removed from the property, not where carcasses are moved within a site. If shot taken misses the deer, record S_M (or "Shot but missed"), record the Number of Shots taken (**NumShots**), and record the Number of Animals Treated (**NumAnTreat**) as 0.	Shot and recovered (or S_R) Shot not recovered (or S_N_R) Seen not shot (or S_N_S) Seen out of range (or S_O_R) Shot but missed (S_M)	Text	255	No
NumShots	**Number of shots:** Number of shots taken per deer. Use 0 for observations only, or leave blank.	0, 1, 2, 3…	Number	Long / Integer	Yes
NumAnTreat	**Number of Animals Treated:** How many animals were treated or observed. For control points the value should be 1. For **observations** (no shot taken), please record the total number of deer seen at that location. (We will know that the animal has been observed only as **Record Type** will be 'Seen not shot' and *Point Location* will be 'Observation')	0, 1, 2, 3…	Number	Long / Integer	No

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
SpCommNam	**Species Common Name:** common name of the Deer species or secondary target.	e.g. Sambar Deer (name as per species list below)	Text	255	No
Sci_Name	**Species Scientific Name:** scientific name of the Deer species or secondary target.	e.g. Cervus unicolor	Text	255	Yes Optional
Species	**VBA Taxon ID for the species** – the Victorian Biodiversity Atlas (VBA) taxon ID. **Enter the code only** (Names shown to assist selection) See full VBA Taxon List at: VBA Species checklist Equivalent to PV attribute "VBA ID"	VBA - TAXON_ID – SCIENTIFIC_NAME – COMMON_NAME 50273 – Cervidae spp. – Deer 903717 – Cervus spp. – Deer (unidentified) 528556 – Axis axis – Chital Deer 11523 – Dama dama – Fallow Deer 11525 – Axis porcinus – Hog Deer 11526 – Cervus elaphus – Red Deer 11528 – Cervus timorensis – Rusa Deer 11527 – Cervus unicolor – Sambar Deer 11822 – Cervus canadensis – Wapiti And other species: 11521 – Capra hircus – Goat (feral) 528552 – Vulpes vulpes – Red Fox 11514 – Sus scofa – Pig (feral) 11536 – Felis catus – Domestic Cat (feral)	Text	255	Yes

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
Sex	**Sex:** Of deer. For deer unable to be recovered, this may be unknown.	Male Female Unknown	Text	255	Yes
AgeClass	**Age Class:** Age of deer. For deer unable to be recovered, this may be unknown.	Adult Sub-Adult Juvenile Unknown	Text	255	Yes
AntlerStag	**Antler Stage:** Growth stage of antlers where applicable (select NA for female deer). For deer unable to be accessed or recovered, this may be unknown. NA for females.	Hard Velvet Cast Unknown NA	Text	255	Yes
harvest	**Carcass Harvested?:** Record whether the carcass was removed from site and taken for commercial harvesting for pet food or human consumption. If No, it is assumed carcass is left on site. Record NA for sightings If taken off-site for burial or other disposal method, this information could be recorded in comments section.	Yes No NA	Text	255	No

Shapefile field abbreviation*	Field Attribute Description	Valid Values	Data Type	Character Length	Allow NULL #
tag_id	**Tag ID:** used to identify deer or deer parts that are removed from the control site	Free text	Text	255	Yes Optional
Comments	**Comments:** Any clarifying or noteworthy information relating to this record.	e.g. Deer inaccessible and unretrievable in a steep vegetated gully. e.g. Controller No. 1	Text	255	Yes
creator	**Creator:** person who recorded the waypoint	Name of individual or organisation recording the waypoint and details	Text	255	No
dateCreate	**Creation Date:** Date the deer waypoint was recorded. *Other formats, as recorded by the GPS or other software used, will be acceptable, including where date and time are combined.*	e.g. 15/04/2025 12:05:00 AM (ArcGIS Pro Date format includes the time) Or 2022-10-21T22:49:34 etc	Date or Date/Time		No
LastEdited	**Last Edit Date:** date of the last edit to the data point	Date / time field. e.g. 15/11/2024 1:57:23 PM	Date or Date/Time		Yes
LastEditor	**Last Edited User:** Identifiable person or organisation (this helps with data checking)	Person or organisation name	Text	255	Yes

* Field name is abbreviated to prevent clipping in Shapefiles to 10 characters. (GeoDatabases allow longer attribute names)

Allow Null options are:
      No – Cannot be null. Mandatory field
      Yes – can be left blank if data is not able to be captured (e.g. for observed or inaccessible deer)
      Optional – may not be relevant to project or may be collected in lieu of other data. These are data fields collected by some agencies.

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