

COMPLETE USER GUIDE

# How to use FieldWise Pro Ecology

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Professional ecological fieldwork — structured survey modules, live field tools, mapped spatial evidence, ALA-backed taxonomy and immutable QA, exported as report-ready PDF, CSV, Darwin Core and GIS packages.

## ORIENTATION

# What Pro Ecology does & how it's laid out

FieldWise Pro Ecology turns ecological fieldwork into **structured, mapped, report-ready evidence** for consultants, land managers and conservation teams. It's **offline-first**: capture surveys anywhere with no connection, and sync to your organisation's shared workspace when you're back online.

## The five tabs

| Tab         | What it's for                                                                         |
|-------------|---------------------------------------------------------------------------------------|
| Projects    | The consultant dashboard — set up a job and record surveys against it.                |
| Field Tools | Live-computation recorders you read off and enter into a record.                      |
| Map         | The professional field map — typed pins and point/line/polygon geometry.              |
| Reference   | Survey-methods library, a plain-language regulatory overview and the data boundaries. |
| Report      | Export report-ready evidence packs and professional data packages.                    |

## What's in this guide

### 1 Getting started

Sign-in, the org workspace, security and offline work.

### 2 Projects & surveys

Setting up a job and the nine survey modules.

### 3 Field tools & the map

Live recorders and mapped spatial evidence.

### 4 Taxonomy & QA

Species authorities, verification and immutable sign-off.

### 5 Reference & compliance

Methods, the regulatory overview and boundaries.

### 6 Reports, packages & the Pro Hub

Exports, dashboards and the shared Core.

**Important.** Pro Ecology **supports evidence collection and reporting** — it **does not give legal advice or make regulatory decisions**. Compliance-critical exports carry an on-screen reminder to have a professional review them before submission.

## SECTION 1

# Getting started

## Signing in & your workspace

Sign in with your shared **FieldWise Professional** login. You then work from your **assigned organisations, properties and ecology projects** — everything you capture is scoped to them.

- Session credentials are held securely in the iOS **Keychain**.
- Optional **Face ID, Touch ID or passcode** re-entry protects work when the app is backgrounded.

## Offline-first

The app is built for the field: capture survey records offline and safely **queue changes and media**. When you reconnect, queued work syncs to the shared workspace.

**Note.** Records stay on the device and are yours first; sign-in and multi-device sync use the shared Professional Core, but capture never waits on a connection.

## Finding your way around

Five tabs carry the whole workflow:

**Projects** **Field Tools** **Map** **Reference** **Report**

**Tip.** Confirm you're in the right organisation and project before you start — surveys, pins and photos all attach there, and it's what a report and a GIS package are scoped to.

## SECTION 2 · PROJECTS &amp; SURVEYS

## Setting up a project

The **Projects** tab is your consultant dashboard. A project is the job everything hangs off — you set it up once, then record surveys against it.

### Project setup

When you create a project, capture the professional context:

| Field                        | Why it matters                                              |
|------------------------------|-------------------------------------------------------------|
| Client & site                | Who the work is for and where it is.                        |
| Purpose & regulatory trigger | Why the survey is being done (e.g. an EPBC/EES trigger).    |
| Team                         | The people working the job.                                 |
| Permit / licence reference   | Stored on the project, ready for salvage and handling work. |

### Recording surveys

Add survey records to the project from the **New Record** sheet. Records **group by module**, so a project reads as a clean set of fauna, flora, habitat and other surveys. Each record keeps an **audit trail** — observer, timestamp, GPS and updated time.

**Tip.** Fill the permit/licence reference at setup if the job involves salvage or wildlife handling — the relevant modules expect it, and it flows into your evidence pack.

**Note.** From a project you can export a PDF evidence pack or CSV, and the professional data packages covered in Section 6.

## SECTION 2 · PROJECTS &amp; SURVEYS

# The nine survey modules

Surveys are **schema-driven templates** you add as records — a controlled, versioned form for each kind of ecological work:

| Module                         | Records / produces                                                                |
|--------------------------------|-----------------------------------------------------------------------------------|
| Fauna survey                   | Species, method, effort, behaviour, confidence, threatened status.                |
| Flora / vegetation survey      | Species, cover-abundance, community/EVC, quadrat/transect, weeds.                 |
| Biodiversity assessment        | Condition, habitat features, threatened likelihood, constraints, recommendations. |
| Habitat Hectare / offset       | Site condition, landscape context, habitat score, offset actions.                 |
| Fauna & flora salvage          | Pre-clearance, capture/relocation, permits, handler, sign-off, incidents.         |
| Land Management Plan           | Zones, weeds, pest animals, revegetation, fencing, monitoring schedule.           |
| EPBC / EES referral evidence   | Boundary, footprint, MNES/values, survey effort, mitigation, recommendation.      |
| Pest plant & animal monitoring | Species, severity, extent, treatment, follow-up, priority.                        |
| Photo point monitoring         | Fixed point, bearing, round, observed change, progress.                           |

**Important.** The salvage and wildlife-handling modules carry a **licensed-personnel warning** and permit/licence fields — they're for authorised handlers working under the right permits.

**Tip.** Because templates are versioned, a record keeps the **exact template version** it was captured with — so a survey stays defensible even after the template is later updated.

## SECTION 3 · FIELD TOOLS &amp; THE MAP

# Live field tools

**Field Tools** are live-computation recorders — you run them on site, read the result, and enter it into a survey record.

| Tool                | Computes                                                                      |
|---------------------|-------------------------------------------------------------------------------|
| Fauna survey tally  | Effort timer + per-species tally → encounter rate.                            |
| Quadrat cover       | % cover per species, total cover, bare ground, richness.                      |
| Habitat Hectare     | Site condition (/75) + landscape (/25) = score (/100), plus habitat hectares. |
| Pest density        | Count over area → density per hectare + severity band.                        |
| Photo point bearing | Live compass; lock a bearing for repeat photos.                               |

*Quadrat cover — percentage cover, total cover, bare ground and richness.  
(Shown in a FieldWise reference build.)*

**Tip.** Use the Photo point bearing tool to lock a compass bearing the first time, then re-use it every round — matched bearings are what make photo-point monitoring a genuine like-for-like comparison.

**Note.** Field tools do the on-site maths so your record carries a defensible figure — an encounter rate, a habitat score, a density band — rather than a raw count you calculate later.

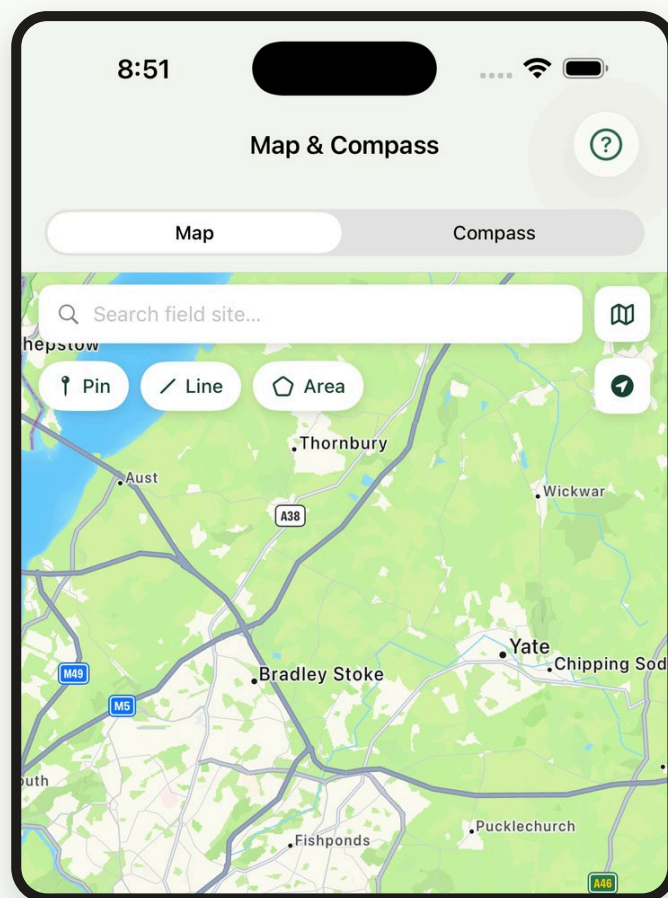
## SECTION 3 · FIELD TOOLS &amp; THE MAP

## The map & spatial evidence

The **Map** is the professional field map. Capture **typed pins** — survey, fauna, flora, habitat, pest, photo point or note — and full geometry.

### Spatial features

- Capture **points, lines and polygons** with a project **CRS**, accuracy, GNSS receiver, correction source and fix type.
- Switch Standard / Satellite / Hybrid basemaps; drop pins by GPS; pins persist.
- Compare approved biodiversity evidence **over time**.



The field map — typed pins and point/line/polygon geometry with CRS and accuracy. (Shown in a FieldWise reference build.)

### Sensitive geometry

Sensitive **points are generalised** for users without the sensitive-coordinate capability; sensitive **lines and polygons are hidden**. Offline packages and exports apply the same role and purpose controls before anything is distributed.

**On the map.** Sensitive-location handling is automatic and consistent — a threatened species' precise location is protected on the map and in every export unless the recipient is authorised for that purpose.

## SECTION 3 · FIELD TOOLS &amp; THE MAP

# GIS interoperability

## Importing geographic data

Bring existing spatial data straight in:

- **GeoJSON** — Point, LineString and (first-ring) Polygon geometries.
- **KML** coordinate blocks.
- **CSV / TSV** points using latitude/longitude, lat/lon, or y/x columns.

Imported coordinates are tagged **WGS 84**; captured features retain the project CRS, GNSS receiver, correction source, fix type, timestamp and horizontal/vertical accuracy.

## Shapefile & GeoPackage

Convert these desktop formats to GeoJSON before import. In QGIS: **Export** → **Save Features As** → **GeoJSON**, choose WGS 84 for interchange, and keep the source CRS in the layer name or metadata. The app deliberately doesn't partially parse multi-file shapefiles on the device.

## Offline basemaps

**Important.** Apple Maps tiles aren't copied into offline packages. Your organisation must configure a basemap provider whose licence permits offline download and field use; until then a study-area package shows a "Licence required" status.

**Tip.** Standardise on GeoJSON in WGS 84 for anything you hand between the app and desktop GIS — it round-trips cleanly and keeps CRS metadata intact.

## SECTION 4 · TAXONOMY &amp; QA

# Species identification & taxonomy

## ALA-backed authorities

Resolve Australian taxa through **ALA-backed authorities**. When you pick a taxon, its **exact source ID and source version are copied into the record** — and your originally submitted name is preserved alongside the accepted name, so nothing is silently changed.

## Taxon packs

Taxonomy is delivered as controlled **taxon packs** (jurisdiction, source version, licence, habitat scope). Updating a pack **never rewrites an existing record** — each survey keeps the taxonomy it was captured with.

## Identification Assist & verification

- ALA results and **Identification Assist** candidates are **suggestions only**.
- They stay **unverified** until an authorised verifier reviews the evidence.
- Threatened or significant taxa additionally require **media evidence and sensitive-location handling** before a record can be approved.

**Important.** An identification suggestion is never treated as confirmed on its own — a person must verify it, and significant taxa need photographic evidence and location handling before approval.

**Tip.** Photograph threatened or significant taxa at the time of the observation — approval depends on it, and it's far harder to add convincing evidence later.

## SECTION 4 · TAXONOMY &amp; QA

# Quality assurance & sign-off

## The QA review

Before evidence becomes final, the app walks you through **completeness warnings, corrections and significant-taxa checks** — then an **immutable QA sign-off** locks the record.

## Draft vs final

| State | What it means                                                                    |
|-------|----------------------------------------------------------------------------------|
| Draft | May contain working records; reports built from it are visibly marked as drafts. |
| Final | Only locked, QA-signed records are included.                                     |

## What a final record carries

Each locked final record prints its **stable UUID, a locked checksum, the approver, the approval time, and the QA method version** — so a figure in a report can always be traced to an exact, unaltered record.

- Every record keeps an audit trail: observer, timestamp, GPS and updated time.
- Scenario and impact analysis is derived — it never modifies the baseline evidence.

**Important.** QA sign-off is immutable. A signed record can't be quietly edited — later changes are tracked, not overwritten — which is what makes the evidence defensible.

## SECTION 5 · REFERENCE &amp; COMPLIANCE

# Methods, regulation & boundaries

## The Reference tab

**Reference** keeps the professional context on hand in the field:

- A **survey-methods library** for the techniques behind each module.
- A plain-language **regulatory overview** — EPBC, EES, state vegetation, permits and offsets.
- The professional **data and compliance boundaries** that govern how the app is used.

## The professional boundary

Pro Ecology is deliberately scoped as an evidence tool:

- It **supports evidence collection and reporting** — it does not give legal advice or make regulatory decisions.
- Salvage and wildlife-handling modules carry a **licensed-personnel warning** and permit/licence fields.
- Sensitive locations can be flagged per record and are **withheld from ordinary exports**.

**Important.** The regulatory overview is plain-language orientation, not legal advice. Compliance-critical work still needs qualified professional judgement and, where required, the correct permits and referrals.

**Note.** Keeping methods and the regulatory overview inside the app means a field team can check an approach or a definition on site, without carrying separate references.

## SECTION 6 · REPORTS, PACKAGES &amp; THE PRO HUB

# Reports & professional packages

The **Report** tab turns approved evidence into the deliverables a professional job needs. Pick a project and export:

| Package                    | Contents                                                                                          |
|----------------------------|---------------------------------------------------------------------------------------------------|
| PDF evidence pack          | A report-ready PDF of the project's evidence, with QA reminders.                                  |
| Records CSV                | The project's records as a spreadsheet table.                                                     |
| Darwin Core occurrence CSV | Occurrences with accepted taxon names and source identifiers.                                     |
| ALA submission prep        | Darwin Core plus the evidence-media manifest (submission stays a deliberate professional action). |
| GIS package                | GeoJSON with CRS metadata, source project IDs, confidentiality treatment and a data dictionary.   |
| Media manifest             | Record ID, filename, creator, timestamp, location treatment and QA state per file.                |
| QA audit export            | The complete payload wrapped in a SHA-256 checksum.                                               |

**Important.** Sensitive coordinates stay withheld unless the active role has the **sensitive-coordinate capability** and the recipient is authorised for that export's purpose. Compliance-critical exports show a reminder to have a professional review them first.

**Tip.** Export the QA audit package alongside your PDF for anything that may be scrutinised — the SHA-256 wrapper lets a reviewer confirm nothing changed after sign-off.

## SECTION 6 · REPORTS, PACKAGES &amp; THE PRO HUB

# Dashboards & the shared Core

## Operational dashboards

Beyond a single project, Pro Ecology gives you organisation-level oversight — review dashboards for:

Portfolio Project Team workload Monitoring Quality Storage

## The Pro Hub / Professional Core

Pro Ecology brings the shared **Professional login and organisation workspace** into the field. You work from assigned organisations, properties and projects; changes and media queue offline and sync to the shared Core when you reconnect.

## Feeding Biodiversity Pro

Approved Ecology evidence can flow on to **FieldWise Biodiversity Pro** through a controlled contract that exposes only **approved record IDs, checksums, the versioned baseline and scenario zones** — so downstream analysis builds on locked, traceable evidence.

**Note.** A Security & Privacy centre keeps security, export and incident events reviewable; support diagnostics are redacted to exclude records, media and coordinates.

**Tip.** Use the Quality and Monitoring dashboards to spot what still needs QA sign-off or a repeat visit before a reporting deadline, rather than opening every project.

## BEST PRACTICE

# A recommended end-to-end workflow

A dependable order of work for an ecology job:

## 1 Set up the project

Capture client, site, purpose, regulatory trigger, team and permit/licence in project setup.

## 2 Prepare for the field

Confirm your taxon pack and stage the study-area map; check the offline basemap licence.

## 3 Survey with the right module

Add records from the nine modules; run the field tools for encounter rates, cover, habitat scores and densities.

## 4 Map the evidence

Capture typed pins and point/line/polygon geometry with CRS and accuracy; flag sensitive locations.

## 5 Identify & verify

Resolve taxa through ALA authorities; a verifier confirms suggestions; add media for significant taxa.

## 6 QA sign-off

Clear completeness warnings and corrections, then lock records with immutable QA sign-off.

## 7 Report & package

Export the PDF evidence pack plus the Darwin Core, GIS, media and QA-audit packages you need.

## 8 Sync & oversee

Sync to the shared Core, review the dashboards, and pass approved evidence on to Biodiversity Pro.

**Tip.** Two habits carry the most weight: **capture geometry and media at observation time**, and **verify and QA-sign before you report** — together they make every export defensible and permission-safe.

## REFERENCE

# Troubleshooting & glossary

## Quick troubleshooting

| If...                                    | Then...                                                                                                                      |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| You can't sync                           | Sign-in and multi-device sync need a connection; offline, keep capturing — changes and media queue and sync later.           |
| A species stays unverified               | ALA and Identification Assist results are suggestions until an authorised verifier confirms them.                            |
| A record won't approve                   | A threatened/significant taxon needs media evidence and sensitive-location handling; clear completeness warnings first.      |
| A shapefile won't import                 | Convert it to GeoJSON (WGS 84) in QGIS first — the app doesn't parse multi-file shapefiles on-device.                        |
| Coordinates are missing from an export   | Sensitive coordinates are withheld unless your role has the sensitive-coordinate capability and the recipient is authorised. |
| The offline map shows 'Licence required' | An offline basemap provider with field-use rights must be configured for your organisation.                                  |

## Glossary

| Term                 | Meaning                                                                             |
|----------------------|-------------------------------------------------------------------------------------|
| Survey module        | A schema-driven, versioned template you add as a record (fauna, flora, habitat...). |
| Habitat Hectare      | A site-condition/landscape score (/100) and habitat-hectare figure.                 |
| Taxon pack           | A controlled, versioned taxonomy source (jurisdiction, source version, licence).    |
| QA sign-off          | The immutable lock that makes a record final and traceable.                         |
| Darwin Core          | A standard occurrence format for biodiversity data exchange (e.g. to the ALA).      |
| Sensitive coordinate | A protected location, generalised or hidden unless the role and purpose allow it.   |
| Professional Core    | The shared login, organisation workspace and sync behind the Pro suite.             |

### A note on responsibility

Pro Ecology supports evidence collection and reporting; it does **not** give legal advice or make regulatory decisions, and salvage/handling work requires the right permits and licensed personnel. For product information visit [fieldwiseeducation.com.au/professional](https://fieldwiseeducation.com.au/professional).