BioCollect
advanced data collection for biodiversity projects

User Manual

ATLAS OF LIVING AUSTRALIA
sharing biodiversity knowledge

Citizen Science - version 1.0

NCRIS
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1. About the BioCollect system

The BioCollect system has been developed by the Atlas of Living Australia (ALA) to support communities and organisations in capturing and managing field-based data at source and to facilitate the smooth flow of standardised biodiversity and other environmental data into the ALA and other major data aggregation repositories where it can be readily accessed and used to better understand our natural assets, as well as to improve planning, management and protection of them into the future.

BioCollect supports both “event-based” (conventional survey/monitoring), as well as “activity-based” styles of data recording. The activity-based model is essentially a project management approach to collecting and managing data and the system can be used as a project management tool for these kinds of projects. In activity-based projects, you build a chronologically arranged schedule of associated actions aimed at achieving a planned outcome and then record data for each activity as the plan is implemented.

The “project finder” feature of BioCollect is essentially a comprehensive searchable catalogue of projects providing direct access and linkages to all associated project materials and resources on all kinds of internet accessible external platforms. Projects registered in the project finder can be set up either to use the full data collection features of BioCollect or to just appear as a project in the catalogue. Even the later can still make use of the Blog and attached documents and resources features to further enhance the presence of their projects. You can also easily switch between the two options.

BioCollect can be used as a cloud-based data collection and management system in it’s own right, but importantly it can also be used in other ways such as: providing a database back-end to external web-apps and mobile platforms; or consolidating and mobilising historical datasets on a standardised data schema.

One of the aims of the BioCollect system is to provide a single point of access for all information about a project, regardless of whether BioCollect is being used to collect and manage the project data, or not. This includes: project support materials; communication materials and blog posts; links to mobile apps in any app store; links to external resources such as organisation and project websites, social media channels, etc.; survey forms; project data; and links to project contacts. It can also be your data collection and management system.

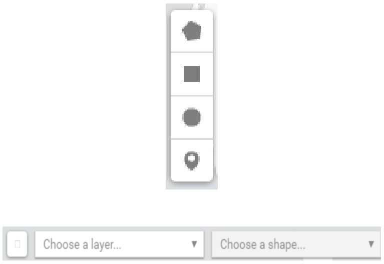
Both project and survey level descriptive information and collected data aligns with existing and developing standards as much as possible. The system is also linked to other major project finders around the world allowing your project to be discovered globally as well as for you to be able to easily discover and access other people’s projects happening anywhere in the world.

BioCollect really is a single platform where you can promote your project to the world and make it discoverable by anyone who might be interested, as well collect and manage your field collected data from simple to quite complex data structures.

BioCollect is well supported and actively being developed by the Atlas of Living Australia and, being an open source product which is part of the ALA’s suite of tools, it has a growing community of practice to maintain and further develop the code-base.

2. The Project Finder - Find projects that interest you

2.1. What projects are in my area?

Step 1.		Open the filter options panel if it is not already open.
Step 2.		Select the geographic filter option at the bottom of the filter section.
Step 3.		**<u>Find your area of interest</u>** Use any of the variety of tools to locate your area of interest. Options include: the **+ / -** to zoom in and out on the map (left-click and drag to pan the map); the **Arrow head** to zoom to your current location (requires browser location services to be enabled); the **Circle with cross-hairs** to search by street address or locality name; and the **Magnifying glass** to search by region name.
Step 4.		**<u>Define your area of interest</u>** Use any of the variety of tools to define your area of interest. Select a map tool and draw a **circle, square or polygon** covering your location or geographic area of interest; or the **point location tool** for a specific place. Alternatively you can use the "**known area tool**" (at the bottom of the tool palette) to select your area of interest by a pre-defined geographic shape.
Step 5.		Click "Next". The map pop-up will close and return to the project list displaying only projects which have all or part of the project area extent within your defined geographic area of interest.
Other options		You can now use other filters to reduce the results further to just projects of a particular kind that interests you (eg. birds) - follow steps below under "2.2. Find projects by theme or keyword" and "2.3. Find projects by facets and tags".

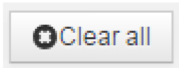
2.2. Find projects by a search term or keyword

Step 1.	 Found **471** projects.	On the project finder page, type a search term into the search box at the top right hand corner of the page. Projects in the results window will update to show only those which contain the search term in the project information (title, aim, description, etc.) and the count of the number of projects will adjust to

		reflect the total number of projects which contain the search term.
Other options		The default sort order of listed projects is the most recent at the top, but you can easily change the sort order by clicking on the toggle options at the top of the list.
		At the top of the results set you can choose how many projects you want to display on the page. Note that the higher the number selected, the longer it will take to retrieve the projects from the server for that page.
		The default set of projects listed are only those which Australians can participate in, ie. projects occurring in Australia and those being undertaken worldwide. If you want to see all projects globally which contain your search term, simply click on the toggle button at the top right hand side of the results list.
		The project finder provides different views of the result set as either a GRID layout or a LIST layout. You can toggle between these views by clicking on the relevant view button in the top right hand corner above the results panel. In the future a MAP view option will also be available.
		At the bottom of the results set is a page selector which allows you to jump directly to a particular page ahead or back, or to progress through the result set page by page in either direction.

2.3. Find projects by facets and "tags"

Step 1.		Open the filter options panel if it is not already open and click on facet section headers to expand the sections and expose the facet options available.
Step 2. Option a.		<u>**Select filters one-by-one**</u> Click on the linked text part of the facet option you wish to filter by. This will automatically apply the filter and place the selected option in the "Current filters" section at the top of the filter panel. Projects in the result set will also be automatically adjusted to reflect the filtered selection. You can then select more filters, or remove currently selected filters as required.

Step 2. Option b.		**<u>Select multiple filters at once</u>** Click on one or more checkboxes adjacent to the linked text part of the facet options you wish to filter by. Then click on the Refine button at the top of the filter section to action the filter request. **Note:** Nothing will happen until you action the request by clicking on the Refine button. The selected filters will then appear in the "Current filters" section at the top of the filter panel. Projects in the result set will also be adjusted to reflect the filtered selections. You can then select more filters, or remove currently selected filters as required.
Other options		Click on the **Clear** button at the top of the filter section to clear all filter selections and search terms and return to the default view.
	?	Hover over the **Question mark** in the black circle to see a tool tip describing each facet category.

2.4. Combining your filter options

TIP		All three of the above methods work together and you can combine any or all of them in any combination to quickly narrow-down the result set to only projects which might be of interest to you - **GIVE IT A GO!**

3. Add your project to the Project Finder

3.1. Register a user account

Before you start you will need to have an active user account with the Atlas of Living Australia to register a project. If you already have an active ALA user account you can simply login and create your project. If you don't have an active ALA user account you can Click here or "Login" in the menu to set up your user account.

NOTE: The ALA will send you an email with a link to activate your new account. Sometimes this email can be trapped by spam filters and sent to your junk folder. Please check this folder if you don't receive the activation email within a few minutes.

3.2 Create your project

In order to get your project onto the project finder you will need to register it into the system. This involves entering some simple information about the project so that you can explain to others what you are doing and aiming to achieve, where it is, what kind of project it is, how people can participate in it, etc.

Most of the project registration form is self-explanatory, but in this section we describe a few of the more important aspects which might not be so obvious.

It should only take a few brief minutes to get your project into the system.

Project metadata

What kind of project is this? *	Select the type of project. This should always be **Citizen Science Project**
Do you want to record your project data on this site? *	If you are just registering your project in the project finder **[select "No"]**, or if you want to use this system as your project database and collect your data with the BioCollect tools **[select "Yes"]**. *The BioCollect system which sits behind the project finder is a powerful and flexible field data capture and management facility which can streamline data recording and the re-use of data by others in scientific research, resource management and policy areas.* ***Please consider this option.***
What is the name of the organisation running this project? * 	Start typing the name of your organisation and look in the results box which will appear below the search bar. As you type more of the name the number of matching organisations from the existing database will reduce. When you see your organisation appear in the list, select it and then proceed with project registration. *Every project has to be run by someone and therefore this is a mandatory field. There are many organisations in the system already and we encourage you to select your organisation from the existing list if it is there, as this is beneficial to you.* *If your organisation is not on the existing list, you will be prompted to add it after you have fully searched the existing list.* *If you have searched and scrolled through all potential matching names, you will see a green button appear prompting you to create an entry for your organisation. This will open a pop-up window for you to enter and save a few simple details. Note that you will likely lose any information already entered on the form when you are returned to the page. You will need to re-enter the information if this is the case.*

Tell people about your project

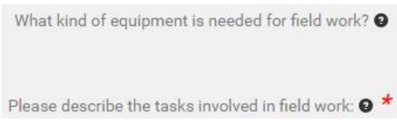
Project Name: * Project Aim: * Project Description: *	These fields are the key information that communicates your project to the world. The "Project name" and "Aim" in particular appear on the project finder and, together with the logo image will be the first thing that people see. Try to include a concise name (title) and describe the aim in a way that makes the project interesting to people browsing the site - after all, you are wanting people to think "That looks like and interesting project", encouraging them to open it to have a look. With the description you have more space to explain all about your project, use keywords in

	the description as much as possible as that will help the project come up in searches.
Contact email address: Contact name:	Contact information is not mandatory, but is extremely useful as it will help potential participants to engage with the project.
Start Date: * End Date:	All projects have to start sometime, but they may or may not have an end date. If your project is on-going, just leave the end date empty. Other projects which are run as a campaign or event will likely have an end date and this should be filled in as this helps people wanting to participate in projects to know whether it is still open to participate in.
This project is run in association with:	This field allows you to give profile to other organisations involved in your project. For those organisations themselves, this also provides them with their own mini-website of projects that they are associated with, which they can use to promote their participation.
This project is run in the following countries: This project is located in the following UN regions:	These two fields are used to support global project search and filtering, enabling your project to only be presented to people who can physically participate in the project based on where they are. Putting yourself in the shoes of the potential participant, would you want to be presented with projects that there is no way you can participate in them? These fields in combination allow for projects to be pre-filtered automatically.

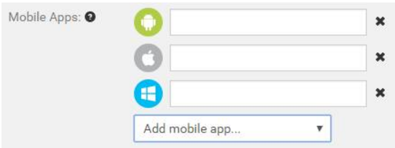
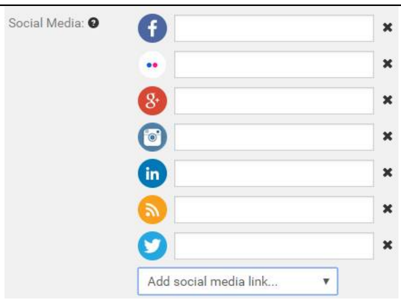
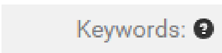
How can people get involved?

This section allows you to highlight to people how they can participate in the project, as well as to tag the project with information categories which will help people searching for projects of interest to them. Selecting appropriate categories will help to make your project discoverable to people that you want to become involved in it.

How can people get involved?	This field provides the opportunity to connect your project with potential participants. Explain in simple terms what people need to do to participate.
Type of science being undertaken: * What is the difficulty level of field work? Is there any cost to participants? Do you provide any teaching materials to participants?	Types of science help people to filter the large pool of potential projects down to areas or domains of scientific interest. Tags are another tool to help people filter projects down to things which interest them. These are pre-defined classifying terms which reflect certain characteristics of the project.

	These fields are used to inform potential participants about what tools and equipment need to be provided or used in order to participate in the project and what tasks participants are expected to do as their participation in the project.

Help people find your project

	If you have another website for your project, you can add a website URL to allow people to navigate from the project page to it.
	If your project has mobile apps, you can add links to the app download pages in the relevant app stores. This allows people to access them directly without having to separately search through the app stores themselves. These will be displayed on the “About” page.
	If your project or organisation has social media or other resource channels, this field allows you to add them to your project, thus providing a single point of access for all information related to your project, making user access comprehensive and easy. These will be displayed on the “About” page.
	The “Keyword” field allows you to add specific terms that you think people might use to search for the project. This can include acronyms, abbreviations, themes and categories, locality names, subject area, etc.

Add graphics to personalise your project pages

	The project logo is displayed on the project finder and makes your project more identifiable and attractive to potential participants. We strongly encourage you to add a logo image to represent your project. Also add attribution for use of the image.
	A feature graphic can be added to your project to add visual appeal to the main project “About” page. For best results you should use a high resolution image and scale it to approx. 1500px wide by 500px high. Also add attribution for use of the image.

Define the spatial extent of the project area

	The project area represents the extent of the geographic area which will contain all of the project data. The map will be displayed on the "About" page and the polygon is used for geographic searching for projects, as well as in the MAP view of projects to display the coverage and distribution of projects in the project finder and organisation pages. NOTE: See section1.1 above for a description of the different tools available for defining the project area.

Acknowledge Terms of Use

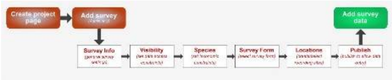
	The checkbox to acknowledge that you have read and accept the terms of use is initially disabled until you click on the link and open the ToU page. Please read the terms of use as it contains important information about how the ALA treats your project information and data, as well as your responsibilities as a project owner. Your use of the BioCollect system is conditional on your acceptance of the terms of use. The Atlas of Living Australia which owns and operates the BioCollect system is an open infrastructure and promotes open data principles. The default license used and which applies to public domain data in BioCollect is the Creative Commons Attribution 3.0 (CC-BY 3.0), though CC-BY 4.0, CC-zero or CC-BY-NC licenses are also acceptable.

4. Set up surveys to collect your project data

This BioCollect system is much more than just a project register to promote your project to the world and make it discoverable, it also provides powerful and flexible set of tools for you to capture and manage your project data, as well as a blog facility for you to communicate your events and achievements to your community and a "Resources" facility for you to provide additional materials and linked information to your community about your project. BioCollect, including the project finder, is hosted and supported by the Atlas of Living Australia.

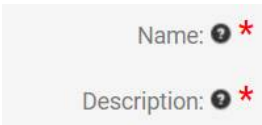
4.1 Add a new survey

A project can have zero, only one or multiple surveys. Each survey can be configured differently and collect different data. The process to set up and configure surveys is described below:

	After successfully creating your project (if you selected "Yes" for the question to use BioCollect to capture your project data), you will see a pop-up page with this diagram and some other information about setting up a survey. Click "Continue" to move to the first step in creating a survey.
	Click on the "Add Survey" button. This will bring up a template focused on Step 1 described below.
	After completing and saving the form template for Step 1 a "Select survey" will appear beside the "Add Survey" button. This allows you, when you have multiple surveys, to select the particular one that you want to review or edit configuration settings for. To add another survey, simply click "Add Survey" and repeat the Steps listed below, as appropriate for the new survey.

Step 1 – Describe the survey and the dataset (survey metadata)

Properly describing the survey and dataset is important to informing potential participants about what the survey is about and **is critical** in providing descriptive and contextual information to users of the data on matters which help them to determine bias and limitations in the data and its suitability for their requirements, particularly for people who have not been involved in the data collection activities. **This is a key aspect of making citizen science data more useful and credible in mainstream scientific applications.**

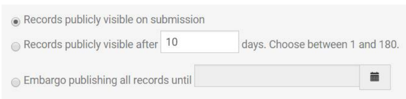
	The "Name" field is the human readable identifier for the survey. It should be descriptive, but brief and concise. The "Description field allows you to elaborate on the title and provide more information and context about the survey to readers. These fields display on the survey listing page and are the main entry point into the survey form.
	The survey data should be credited to someone or something when it is used and cited by downstream users of the information. This field is auto-populated with a concatenation of the project and survey names, however it is editable and you can replace the entry with something else or append to it with something else.

	This attribution will travel with the data in downstream use and credit given to this source when it is used and cited in publications – an important aspect of the CC-BY license.
Survey/sampling method used Description of survey/sampling method	Sampling method is critical in data users being able to assess dataset suitability for their purpose. It helps in understanding sampling bias and limitations which may/may not make the data compatible with the user's intended application for it. Ideally methods should be standardised and selectable from a controlled list, but such a list is not yet available. Until it is, just type in the method used for sampling.
Start Date: * End Date:	All surveys must have a commencement date and may/may not have an end date. **NOTE**: These dates are not just informative, they actually control the availability of the survey for data entry – ie. Data entry will only be available on and after the start date and on or before the end date. The earliest and latest records in a bulk-loaded dataset must also be within the configured date range for the survey.
Allow public users to enter data:	When you create a survey it is automatically restricted to being accessible only by project members. If you want to open it up to the public to enter data, you will need to check the tick-box on this field.
Comments on records allowed:	You can configure surveys to allow discussion threads and commentary on individual records in the view mode. This can be useful as part of a suite of measures to improve data quality and species identification. This field is disabled by default and you will need to check the tick-box to enable it.
Attach logo:	Attaching a logo image for each survey is highly recommended as it makes your project page more visually appealing to users and also helps users to visually identify individual surveys and what they are about without having to read.
Supplementary Information	
Dataset Usage Guide:	This field allows you to provide specific and detailed information to users of the data about how it should be used, any constrains and limitations in the data, special usage conditions, etc.
Last Updated:	This is currently a manually set date field to indicate to data users the currency of the dataset. In the future this will auto-populate from the most recent create/edit action from the audit log.
Legal Custodian of the Dataset:	The organisation which is running the project is assumed to be the legal dataset owner and auto-populates this field.

	However it is editable and can be changed if the legal owner is another entity. It is important to check and correct this as appropriate as the legal ownership statement will accompany the dataset as it is accessed and used by other people.
	This is the Creative Commons attribution license, default and non-editable at this stage, as specified in the Terms of Use. However, in the future other suitable CC open data licenses will also be available as selectable options, with CC-BY 3.0 still as the default.

Step 2 – Visibility

Visibility configuration allows you to decide how and when the survey data is made publicly visible and accessible.

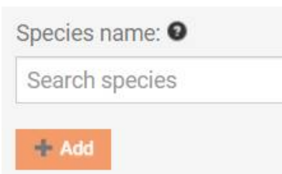
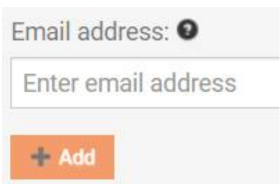
	There are three record visibility options currently available: 1. <u>Public on submission</u> (default) – As it says, records are publicly visible as soon as they are submitted/received into the system. 2. <u>Public after a specified number of days after submission</u> – This option caters to the situation where you want to withhold records from public view for a period of time until you've had a chance to review them and correct any anomalies (ie. It provides an opportunity to moderate records before they go into the public domain). The maximum number of withholding days is 180 (6 months) and this applies to individual records. 3. <u>Public after a specified future date</u> – This option caters to situations where it is important to retain data visibility to within the project membership only for a certain period of time, such as researchers needing to publish their work before they publish the raw data, datasets containing culturally sensitive information, etc. This option allows a forward date to be set up to 12 months in advance and, within this period, the date can be manually moved further in advance.
NOTES:	• Data which is subject to embargo are only visible to project members. • All data which is not under embargo is publicly visible. • Data is expected to go into the public domain under a CC-BY license at some point. • Records are always editable by the submitter and all member of the project who have an "Administrator" role.

	<u>Treatment of “sensitive species” records</u> BioCollect treats the visibility of sensitive species in the same manner as the main Atlas of Living Australia – ie. All species records are sent to the ALA sensitive data service for instructions on how to treat the public view of record spatial precision for that species in that location. Spatial denaturing rules for all listed sensitive species are provided by each state, territory and commonwealth environment agency. **<u>Limitations</u>** 1. Embargoing individual records or whole datasets indefinitely is not currently supported. 2. Releasing individual records into the public domain after a moderation process is not currently supported. Plans are being made to implement appropriate mechanisms to deal with current limitations, whilst still preserving the spirit of public infrastructure for public data.

Step 3 – Alerts

The Alerts tab allows you to configure automatic notifications to nominated email accounts whenever certain species are recorded in that survey. This feature is still very basic, but is planned to be significantly enhanced in the future with more “trigger” options, as well as more “response” options.

The feature is optional in survey configuration and you can just skip through it if you don’t wish to set an alert.

 	Start typing the scientific or common name of a species and a list of names containing that text string will appear in a drop-down list below the input box. As you type more characters the list of options will reduce. When you see the name that you are looking for in the list, click on it to select it. You can add as many species names as you wish to receive notification of.
 	If a species is listed above as an “alert species”, the system has to know where you want the alert notification to be sent to. You can send alert notifications to one or more email addresses.

NOTES	• Input is not case sensitive, but it is spelling sensitive – ie. A spelling error will not return the required species name. • It is not currently possible to have different notification addresses for different species. Notifications of any listed species are sent to all listed addresses.

Step 4 – Select survey form template (proforma)

Along with the survey metadata (step 1), form selection is the most important step in configuring the survey. This is essentially the proforma into which survey data will be collected. Form selection is important as it affects other configuration options such as species selection (step 5)

Select a form template: *	This is currently a simple select-list of proformas which have already been developed and in use by someone else. We believe that data collection requirements for a particular situation (eg. Weed management) in one area is not so different to requirements for the same situation in another area. We also don't believe in "reinventing the wheel" and that re-using a proforma developed for one person's situation is better than a bespoke rebuild for every situation. Scroll through the list to find an existing proforma which might suit your needs. If none of the existing proformas fit your requirements, please contact the Atlas of Living Australia (support@ala.org.au), including your contact details, and you will be contacted to discuss your specific requirements. New proformas can be developed for most data collection requirements – see Notes below.
TIPS	A survey cannot be published without having a proforma associated with it. Rather than change an existing form for the current survey it is better to end-date the current survey (see step 1 above) and create a new survey. This way existing data remains valid for the survey that it was collected for. It doesn't matter that there might be significant overlap in the data collected as equivalent data between the two surveys can still be viewed and analysed as if they were part of the same survey anyway.
NOTES	Users are encouraged to re-use existing proformas for common situations as much as possible. This facilitates more effective data aggregation, analysis and downstream use, and is ultimately simpler for everyone. However, we understand that there are many situations which call for bespoke requirements and these can be accommodated in

	most cases. The ALA is happy to work with project owners in such cases. Once data records have been made using the selected form, you cannot change the form without “unpublishing” the survey and allowing the system to delete the data. This is because changing the form could significantly affect the structure, meaning and even visibility/accessibility of existing data records (see TIP 2 above).

Step 5 – Species configuration

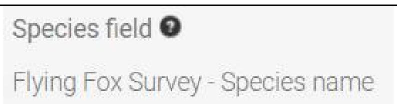
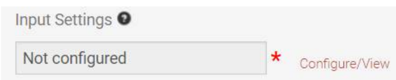
The species configuration feature allows you to restrict the taxonomic reference list for each species field in a form – it is dependent on the proforma selected (which is why this step is after the selection of the proforma). The default setting is that species fields are not configured, but they must be configured in order to publish the survey.

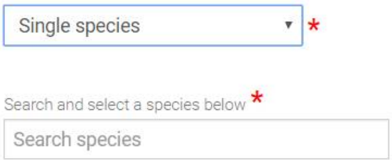
The usefulness of this feature is perhaps best explained by using a few examples:

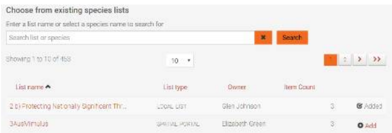
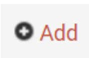
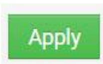
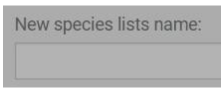
1. A survey of a single species (eg. koala, platypus, or rare bird) – Pre-populates the species field for every record and makes it non-editable, thus reducing data entry effort and the risk of data quality issues.
2. A survey of a specific group of taxa (eg. Reptiles, amphibians, or fungi) – Configuration allows for a relatively small subset of taxa for the recorder to choose from and these are very specifically targeted to the purpose of the particular survey.
3. A survey of a specific set of taxa that are likely to be found in a particular area (eg. – Like in case 2, the taxonomic reference in this case is a subset of all species, but it is further filtered down to only those likely to be in a particular area. This level of configuration flexibility further reduces the risk of false-positives being recorded.
4. A survey of a set of particular parasitic plants occurring in a particular range of host plants (eg. Mistletoe species occurring in eucalypts) – Configuration allows for the species field for parasite species to be different to the species field for eucalypt species and neither look-up list to include species which are not mistletoe or eucalypt species.

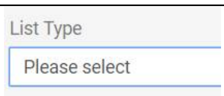
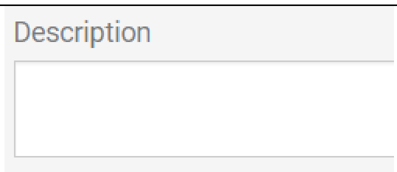
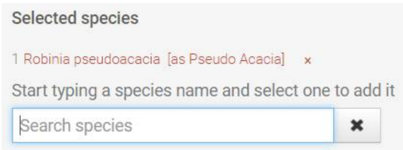
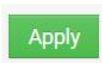
By restricting the list of available species for specific fields in specific surveys you can, to some reasonable degree, manage issues around input errors, false-positives and mis-identifications of species and thus significantly improve data quality and identification confidence. **This is very important!**

If the selected form does not have a species field, then this step is not applicable.

	If the selected form template contains one or more species fields, each field will be displayed on this page using the field label from the form.
	By default the field(s) will not be configured, yet they must be in order to publish the survey. Click on the “configure/view” link – see below for the configuration process.

	You can change the way that species names appear on forms and data records via this configuration setting. Options include: • Scientific name (common name) • Common name (scientific name) • Scientific name • Common name
<u>Configuring “Lists” of species</u> There are three options available for configuring the species reference list:	
	a) <u>All species</u> This uses the ALA species name look-up service in the species field of the data collection form. As you start typing the scientific or common name of a species it will searches for that text string in the name of all species names held in the ALA across all taxa and without any geographic constraint. This is the least preferred configuration option in most cases as it provides the least support for taxonomic data quality control. For example it is easy to record marine animals on land.
	b) <u>Single species</u> Whilst the configuration process uses the ALA species name look-up service to select the species of interest, in the data collection form the species name will be auto-populated and it will not be editable, thus assuring taxonomic data quality. Simply start typing the scientific or common name of the species of interest and when it appears in the select list, click on it. Then click “Apply”.
	c) <u>Selection or group of species</u> This is likely to be the most common configuration setting for species fields and is the most complex to set up, but it does provide the best DQ outcomes where a selection of multiple species option is required for a species field. A species list can contain any selection of species that you require, such as: all species occurring in a particular taxon group (eg. Frogs) or multiple groups (eg. Insects, arachnids and crustaceans); all species of all taxon groups recorded in a particular area; selected species of selected taxon groups occurring in a particular area; or a selection of individual species/taxa with no particular spatial or taxonomic theme at all. There are several ways to create and select lists containing groups of species. The ALA species lists tool

	(https://lists.ala.org.au) is used to create and hold the defined list of species used for this config setting. You can either: I. Select and use an existing list which has been previously created ("Choose from existing species lists" option); II. Create a new list directly in the lists tool and then select and use it in your survey config. ("Choose from existing species lists" option); or III. Create a new list directly via the BioCollect interface and "Apply" it to the species config in context ("Create new species lists" option).
	See scenarios I and II above.
	• Start typing the name of the required list in the search bar. You will notice the list of lists below automatically start filtering. *Note that this is automatically searching for a species name within existing lists and the automatic filtering reflects lists with species names containing the search string (ie. Not the names of lists themselves).* • When you have typed in a term contained in the name of the required list, click on the "search" button. *You will now see a list of lists containing the search term within the name of the list.* **Notes:** • *Click on the column headers in the list of lists to change the sort order and direction of short-listed items.*
 	If your required species list appears, click on the "Add" button on the right hand side of the page to select it. **Notes:** • *The name of the selected list will appear below the configuration type select box.* • *You can select more than one list in your configuration.* Click on the "Apply" button to finalise the configuration and return to the "Species" configuration tab.
	See scenario III above. This instruction only applies to creating a new species list from within BioCollect itself.
	Give your new list a unique but descriptive short name to help both you and others easily search for and identify it in the list of lists. Ideally the name will be a short summary of what it is and where it applies. *See the names of some others in the list of lists for examples.*

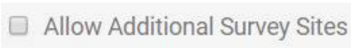
	In most cases "**LOCAL_LIST**" should be selected for this.
	Provide a longer description of what this new list is, what it contains and what it is for. This will assist anyone else who might want to use the list too.
	You can search for and select species to add them to the list. This method works reasonably well for relatively small lists of species, but is not ideal for larger lists as populating it can take a while. **NOTE:** If you have a large list or want to use your own set of common names, it would be better to bulk upload your list directly into the ALA lists tool (https://lists.ala.org.au) and then configure it to the species field via the method described above – "Choose from existing species lists".
	Click on the "Create new species list" button to complete the process and associate it with the species field configuration.
	Click on the "Apply" button to select the species list for the particular species field. Repeat the configuration process for each species field on the selected survey proforma.

Step 6 – Locations

The "Locations" tab allows you to define the geographic scope for data recording in the survey. You may want to scope the survey to a smaller area within the overall project area, or perhaps to a set of specific observation/monitoring sites which have been pre-defined.

 	This column lists sites which have been specified as associated with the survey. The area defined for the project will automatically be listed here by default, but you can include other specific sites which will appear in a select-list above the map in the data entry form. Options for adding sites are described below. If you wish to remove associated sites from this list (ie. Dis-associate them from the survey), click on the arrow to move them into the right hand column. For example, after defining other specific sites for the survey, you can remove the project area as it is no longer relevant to the survey.

	TIPS: • A survey must have at least one site associated with it. • Two or more associated sites will be displayed on the form as a select-list above the map. • The default view of the map in the form will zoom to the extent of the sites associated with the survey.
Sites associated with this project:	This column lists sites which are associated with the project, but not with the survey. For example, sites may have been created for another survey within the project and are listed here in this column. You can easily choose existing sites and simply click on the left-arrow to move them into the left hand column to associate them with the survey.
Add new site	Allows you to manually create a site which appears in a select-list above the map in the data entry form. A site must have a name and a spatial definition as either a point or a polygon. If it is a polygon it will have a “footprint” shape and a calculated centroid point, whereas points only have a latitude and longitude. You can also add a description of the site (eg. Where it is relative to other local features, bearing and distance from an obvious fixed feature, or distance along a road from a fixed reference point, etc.) and a type. In most cases the type should be selected as “**Monitoring point**”. Use the any of the variety of zoom, pan, layer selection and drawing tools to locate and spatially define the site.
Choose existing sites	Instead of creating a new site, you can select and use a site which has already been created for a different project. Since each site has a unique identifier, this is a good option when you want to take a site-based view of data from multiple surveys and projects – the best way to do this is to re-use an existing site. After clicking on this button you will be presented with a list of all sites in the system. You can search and filter them to find the one that you are looking for and a map showing site locations is also shown on that page. When you find the one (or many) that you are looking for, click the “Add” button adjacent to the site name in the list.

	If you have many sites to load and have them in a GIS system already, BioCollect supports bulk upload from an ESRI SHP file format. This can also be very useful if your site(s) has a complex footprint which is difficult to replicate by hand-drawn polygon. The SHP file must be in a .ZIP container file which also includes other files such as the PRJ and DAT files (projection format and sites data table respectively). The coordinate reference system (CRS) used in the projection should be EPSG:4326 (WGS84 decimal lat/long).
	This option allows users entering data into forms to add new sites to the list of available sites in the drop-down site selection list above the map. These will be added to any sites already associated with the survey. If enabled, additional tools are displayed in the tool palette in the map feature. This feature is disabled by default.
NOTES	Sites can be edited to fine-tune point or boundary details, but this **SHOULD NOT** be done after the site has already been used for a data point in any survey as it will change the coordinate and footprint details of the existing record(s).

Step 7 – Publish the survey

	"Publishing" the survey is the final step in the survey set-up process. When you click on the "Publish" button the system will run a validation test to ensure that all mandatory configuration settings have been completed. If they haven't a message will appear advising what is missing. Publishing will not be possible until these issues have been resolved. Goto the relevant tab(s), fix the missing configurations, then return to the Publish tab to try publishing the survey again. When the publishing process is successful, a green "success" message will be displayed and then the view will automatically redirect to the survey list page ("Surveys" tab). You can then go ahead and start entering data into the form.
	If you want to remove a survey from the survey list page you can "Unpublish" it. This does not hide data which has already been made public, it simply hides the survey and it's associated proforma.

NOTES	Surveys must be published in order to be accessible for data entry. Until it is "published", a survey will not be visible on the survey list page ("Surveys" tab).

5. Managing project members

BioCollect allows project Administrators to add "members" to their project. Members can be given permissions in the project which allow them to access project features and content that non-members cannot access.

Members are added to the project by users with an "Administrator" role via the "Admin" tab.

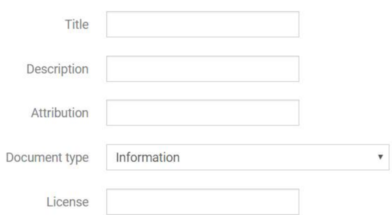
User's email address	Must be a valid and active account with the Atlas of Living Australia.
Permission level	There are three available permissions which apply within a project: 1. Administrator – This role is very powerful and gives holders full access and editorial rights to all aspects of the project, including editing of project and survey metadata pages, editing of any record within project surveys, ability to create and edit survey configurations, ability to add and edit blog items and resource items, add and edit project members and their permissions, etc. The person who creates a project is automatically assigned as an Administrator of the project. 2. Editor – This is a dedicated member role which provides READ access to all aspects of the project and EDIT access only to data records which they create/submit themselves. The role does not have edit access to other contributor records, not any other aspect of the project. 3. Project participant – This role is essentially an honorary project member role for the purpose of data record entry only and is automatically assigned to public (non-member) contributors to the project (ie. When the public participation checkbox is ticked in the step 1 survey configuration page). Permissions for this role are effectively the same as those for EDITOR. Permissions are hierarchical in nature - higher levels include all of the permissions of the levels below. Members can only have one permission and this applies at the project level, not the survey level. Therefore this permission applies to all data visibility and data editing rights for all surveys within the project.

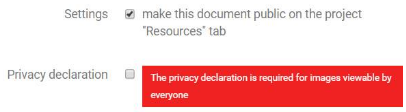
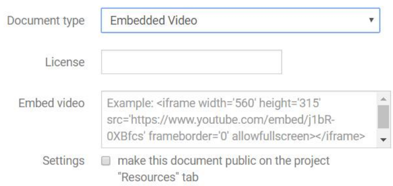
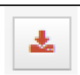
	• Administrators can easily edit the permission level assigned to any member of the project, including other administrators. • A project must have at least one member with Administrator level permission. • A project can have multiple Administrators and all administrators have full access to all editorial features of the project – ie. They can modify any project content and edit any record.
NOTES	• There is no limit to the number of members in a project – just remember though that project administrators are responsible for managing the list. • In order to be a member of a project all users must have an active ALA user account.

6. Adding and Managing Project “Resources”

Project “Resources” are essentially documents and other media items which are attached to a project as additional project information. Resources are added to the project by users with an “Administrator” role via the “Admin” tab and are visible to users via the “Resources” tab.

Types of resources can include: “how to …” instructions and guides; identification support tools such as downloadable field guides; audio files of bird calls to aid species identification, or verbal history stories of indigenous knowledge; project posters and promotional materials; presentation slide packs; progress reports; videos hosted on youtube or vimeo; database files; safety guides; and much more.

	From the resources editing feature (“Admin > Resources”), click on the “Attach document” button. A “Document” is essentially any digital artefact that can be attached to the project and can include video clips stored in
	Title and description are important as they help to identify the document in the list of resources, with the title being the link to open the document for viewing. The document should be attributed to the person/entity who is the legal rights holder of it. The “Document type” allows you to specify it as an information artefact or a video. This affects other choices below. You should also include a usage license for the artefact, especially if the default CC-BY 3.0 license should not apply. If you do not include a license, CC-BY 3.0 will be assumed.

 	You can make individual documents selectively visible to the public or members as required. By default documents will only be visible to project members. If you want them to be publicly visible you will need to explicitly check the "settings" checkbox to do so. In order to protect the rights of any individuals mentioned in text or displayed in images contained in artefacts which are put into the public domain, you are required to make a declaration that you are responsible for the privacy concerns of any affected individuals.
 	Size limit of 5MB per item. Formats include: PDF, DOC, DOCX, XLS, XLSX, PPT, PPTX, MP3, AVI, and many others. Supported formats can be viewed in-situ on the "Resources" page in an in-built media viewer.
 	Click the "Save" button to upload and store the resource artefact. It will then be visible on the project "Resources" tab according to the visibility rules assigned to the document.
Document type options	There are currently two types of resource artefacts available, but this may be extended in the future to include additional types.
Information	The "information" type covers pretty much anything that is not an embedded video.
 	If you want to use a video as a resource, you can do so by selecting the "Embedded video" document type and then copying into the input box, the 'embed code' which are provided by the video channel that holds the video. This will allow the video to play inside the in-built media player in BioCollect. Supported video channels are youtube and vimeo.
	These controls enable deletion and editing of the document/artefact. Editing it will open the same pop-up used to submit the document, where you can edit the metadata associated with it, including the public visibility setting.
	This feature allows the document/artefact to be downloaded.
NOTES	All materials attached to projects must comply with the Atlas of Living Australia and BioCollect Terms of Use. All breaches of this condition will be treated seriously and may result in appropriate response actions being taken.

7. The Project Blog Feature

The Blog feature allows you to communicate real-time and run-time information about your project to your community and the wider public. Blog articles can include items such as: updates on project progress; exciting or notable things associated with the project (eg. Exciting discoveries, highlighting contributors and contributions, project milestones and achievements, etc.); up-coming events and promotions; and much more.

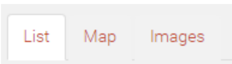
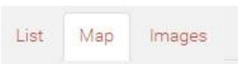
Blog articles are added to the project by users with an “Administrator” role via the “Admin” tab and are visible to users via the “Blog” tab.

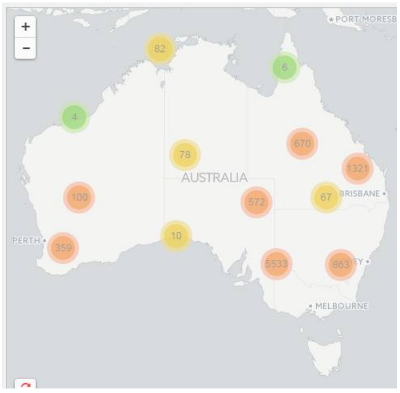
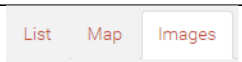
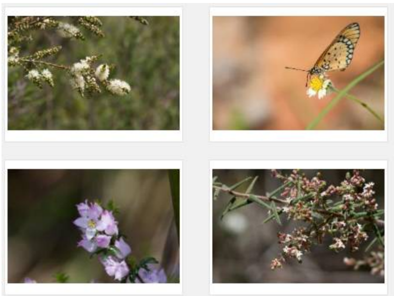
New Entry	From the blog editing feature (“Admin > Blog”), click on the “New entry” button.
Type: ?*	Select an appropriate content type. Options are: 1. News & Events – up-coming events and project activities, discoveries, findings, contributor profiles, etc. 2. Project stories – highlight stories from the project, progress tracking and milestone reports, achievements, etc.
Date: ?*	The date on which the blog article is released. This auto-populates with today’s date, but can be edited.
Title: ?*	The headline title of the article.
Feature image: ? Select or attach an image + Attach	The blog article can have a feature image which can be one of two ways: 1. Select type – This uses a standard info-graphic as an image to represent the type of article. Options include: Important, News, Star, and Information. 2. Attach image – Click on the “+ Attach” button, find the image that you want to use for the article, “Submit” the image.
Content: ?* Edit with Markdown Editor	This is the main content area. You can either type into this text area or use the markdown editor to include emphasis formatting and other elements to your article.
See More URL: ?	The URL link allows you to hook the blog article into a tweet, facebook entry, youtube clip, a related article on your company website, or some other related external resource. This will appear as an active link in the blog article.
Create	When you’ve completed your blog article, click the “Create” button to publish it.
NOTES:	You can easily edit content after publishing it.

8. Reviewing, Editing & Accessing Data

From any of the access points to a data review page you can easily review, edit and access your data. Depending on your permission level in the project, you can also edit other data too.

Action buttons will display to the right of records if the user has permission to apply them.

	Apply search and filters to reduce the results to only those that you require. See section 2 above for guidance on how to do this.
Action button: 	Click on the “View” button to see a read-only version of an individual record. It is currently not possible to switch to edit mode from this view.
Action button : 	Click on the “Edit” button to open the selected record in “edit” mode. This will allow you to amend data and then save the changes.
Action button : 	Click on the “Delete” button to remove a particular record from the database.
 	By default records are displayed in a list format in reverse chronological order (ie. Most recent first). Clicking on a species name will open (new tab) the page for that species in the ALA. Clicking on the survey name will open the survey form template for entering a new record for that survey. Clicking on the project name will switch the view to the selected project data page. Records displayed in the list respect the search and filter settings used.
	Records can be displayed geographically on a map and are clustered according to the zoom level of the view. As you zoom into an area of the map clustering break down into smaller clusters until only individual records are displayed (shown as blue dots). Clicking on a blue dot will display a dialogue box with links which take you either to a read-only view of the record or to the project associated with the record. Records displayed on the map respect the search and filter settings used.

	**NOTE:** Currently the map will only display the first 10,000 records returned. If you need specific records in an area, please apply additional filters to reduce the result set to less than 10,000 records.
 	Images associated with records can be viewed in a gallery format. Clicking on an image will open it in a pop-up viewer. The links below the image can then take you to a read-only view of the record associated with the image, or to the project associated with the record. Images displayed on the gallery reflects the records returned from the search and filter settings used.
	The "Download" option allows you to access raw data. This will produce a zip file containing the following: • Project metadata • Survey metadata • Survey data • Thumbnail images associated with records and url links to the full resolution images • SHP formatted file containing spatial geographies of projects and records, both points and polygons. Records included in the download respect the search and filter settings used.

9. Troubleshooting – Common issues

Below is a guide to troubleshooting some of the more commonly reported issues:

Problem	Cause/Solution
Can’t see my survey on the survey list page (“Surveys” tab)	The survey has either not yet been “published”, or it has been “unpublished”. Goto “Admin > Survey settings”, select the appropriate survey from the drop-down list. Goto the “Publish” tab and click on the Publish button.
Can see my survey on the survey list page (“Surveys” tab), but can’t access the survey form – Add a record button.	There are three possible causes of this: 1. The user is not logged in. 2. Today’s date is outside the date range specified in the survey configuration – See “Admin > Survey settings > Step 1”. 3. User permission does not allow access to the survey. This is more likely to be the case where a non-member of the project is trying to access the survey and the setting to “Allow public to enter data“ has not been enabled in “Admin > Survey settings > Step 1”. This may be a legitimate setting for the survey and if the user is to be allowed access to the survey they should be added as a project member.
I can’t access the “Admin” features of my project.	The most likely scenario is that you are not logged in. If your project has other users with the “Administrator” permission it is possible that one of them could have changed your permission level in the project.
How do I update my project information?	Goto “Admin > Project info” and click on the “Edit” button. Make changes as required, scroll to the bottom of the page and click “Save”.
How can I change my project to use BioCollect for collecting data?	Goto “Admin > Project info” and change the setting of the second field in the template () from “No” to “Yes”. Scroll to the bottom of the page and click “Save”. “Admin > Survey settings” and follow the survey set-up process described in section 4.