

AIMS CORAL BLEACHING APP INSTRUCTION GUIDE v 2.0





AIMS CORAL BLEACHING APP INSTRUCTION GUIDE

This guide contains the following information:

- 1. What you will need
- 2. Download & installation
- 3. Setup
- 4. Recording sightings of coral bleaching
- 5. Optional additional information
- 6. Extra information on each of the optional fields
- 7. Submitting your observations
- 8. Examples of coral growth forms
- 9. Paper datasheet (an alternative to using the app)







AIMS CORAL BLEACHING APP INSTRUCTION MANUAL

Why use the coral bleaching app?

Coral bleaching events can be devastating to our reefs. This app will allow us to collect widespread bleaching observations, and geo-referenced images, from aerial and onground surveys. Data are automatically stored and can be analysed easily. Understanding coral bleaching and recovery will help us to develop strategies assisting reef recovery after coral bleaching events. We can also keep you up to date on coral bleaching and how your data is used via email

What will I need?

An email address and send an email to <u>b.radford@aims.gov.au</u> to registration account to use the app

You will need a device (tablet or smartphone) with GPS capability. Some devices may not update location as quickly as others, or do not have an accurate inbuilt GPS and may not be as accurate. We have tested a limited number of devices. If you experience problems with your device, please contact us for suggestions.

You will need **mobile/wireless range for setup and downloading the app only**, afterwards the app uses GPS only to record the points, and will upload your data once you are back in mobile/wireless range (when you choose to sync the data).

If you don't wish to use the app, a paper datasheet is also available to record similar information.



Devices that work	Devices that don't work
iPad with mobile connectivity (LTE4 or 3G), even without SIM installed (iPad 4 and mini 3 onwards)	iPad with wifi only (has no GPS)
iPhone 7 onwards	
Samsung Galaxy S7 onwards	
Samsung Galaxy tablets (A7/S7 onwards)	
Lenovo M10	
Motorolo G8 or newer	

DOWNLOADING AND INSTALLATION



Finding the app

In your app store, search for 'ArcGIS Field Maps' or use the links below:

Android: <u>ArcGIS Field Maps - Apps on Google Play</u> Apple: <u>ArcGIS Field Maps on the App Store (apple.com)</u>





Setting up – first time use only

One you have emailed <u>b.radford@aims.gov.au</u> and received a user name and password Click on "ArcGIS Field Maps", choose ArcGIS Online Sign in (first time use only, or if you sign out) with url aimsgov.maps.arcgis.com

Username: user name emailed Password: password emailed

Click on the "AIMS Coral Bleaching Aerial Survey App" or "AIMS Coral Bleaching Field Survey Pro" (depending on your type of survey).





SETUP

Choose your work area and map scale

Choose your work area (by clicking on the app adding an offline download areas, then zooming in to your areas of interest in the zoom box). When you click the Download area box this downloads the base map – less than 5MB.

IMPORTANT – try and select a zoomed-in local area where you are going to work (it will give more detail in the field). You can set up more than one work area if you are covering a large area (please contact us for further instructions). You can always add more as needed (when you have mobile/wireless). This must be done **before you're out of internet range** if you are working remotely.

There is also the option to increase map detail – but this increases the download size considerably. You may change the map detail if you wish, but remember, you don't need to be able to see features on the map to pinpoint your location – the GPS will place the points for you.



Area 1 Level of detail: Street

Download Area

Zoom in to the area where your surveys will be – as small an area as possible then click download area



Simple observation

- Tap + at top of screen to add a new bleaching observation.
- Your current location will be selected, so you don't need to pinpoint it on the map.
- Select your bleaching category what % of corals present are bleached?
- If you don't have a clear view of the sky for GPS coverage, you will be prompted.

Optional additional information

Next you have the option to add a photo and some additional information. Remember, these are all **OPTIONAL**, and can be left blank if you are unsure.



You can add or attach photo, or submit without a photo





Optional additional information

You now have the option to add additional information in the following fields. This may seem like a lot of information but remember, these fields are optional and you only need to enter information in as many fields as you wish to. Tap any of the fields and you will see a list of categories to choose from.

These fields are all optional and can be left blank if unsure.

●●●○○ Telstra ᅙ	4:10 pm		1 ∦ 🕞	
Cancel ಕ್ಷನ್ನಿಕ	2-	\bigcirc	Submit	
• Location Lat: -34.953676	93° Long: 117 -	7.35308163°	0 [0 - 6 m	
AverageDepthOfSite_met	res		>	
DeepestBleached_metres	5		>	
PercentCoverAllCoral			>	
PercentBleached_OfCora	IsPresent		>	This field is
a) No bleaching 🤞	`			already filled from
MostAffectedCoral_Grow	thForm1		>	previous entry
MostAffectedCoral_Grow	thForm2		>	
MinorAffectedCoral_Grov	/thForm1		>	
MinorAffectedCoral_Grov	vthForm2		>	
MinorAffectedCoral_Grov	/thForm3		>	
NotAffectedCoral_Growth	ıForm1		>	
NotAffectedCoral_Growth	Form2		>	
Habitat			>	



More information about the optional fields – any can be left blank if unsure



All corals are equally affected



12:53 pm **RECORDING SIGHTINGS OF CORAL BLEACHING** PercentCoverAllCoral Don ALDImobile 🗢 12:54 pm 1 45% More information about the Collect optional fields – any can be left AIMSCoralBleachingFiel... a) No coral cover blank if unsure No location b) less than 1% cover c) 1%-10% cover PercentCoverAllCoral d) 11%-30% cover No Value Choose a category e) 31%-60% cover representing how much of g) > 90% cover PercentBleached_OfCoralsPresent * the sea floor is covered in f) 61-90% cover a) No bleaching coral overall (including live MostAffectedCoral_GrowthForm1 coral as well as bleached) No Value MostAffectedCoral_GrowthForm2 12:53 pn 1 46% No Value Habitat Done MinorAffectedCoral_GrowthForm1 Q Filter No Value MinorAffectedCoral_GrowthForm2 Reef_flat No Value Reef_crest MinorAffectedCoral_GrowthForm3 Reef_slope No Value Lagoon_floor Lagoon_bommie NotAffectedCoral_GrowthForm1 Other No Value NotAffectedCoral_GrowthForm2 This field describes the general habitat of the area Habitat



Submitting your observations

After you've tapped 'Submit', your point will show on the map.

If you need to, you can tap the point then choose edit (if you have made a mistake, and need to change something or delete the point)

Or, tap + to add your next observation. When in the ile/wireless range, upload your observations by checking the home page settings icon that auto-sync and cellular data button is on

Your bleaching observations you be viewed on an online map here with your login:

https://aimsgov.maps.arcgis.com/apps/webappviewer/index.html?i d=b1177ebbd79b4d7ba53551cddb11c8d8



0427173477



Checking Sync data



EXAMPLES OF CORAL GROWTH FORMS

These photos show examples of different coral growth forms (the general shape of the coral), to assist you in choosing coral types in the optional fields to describe which types of corals are most affected by bleaching, those that have a minor affect and those that were not affected by bleaching.

Plate corals – Acropora, look like a plate or table. May be large (>1m across) or much smaller.

Bleached plate corals



Branching coral including 'staghorn' – forms a thicket of branches & often grows in large fields.

Pocillopora are smaller compact colonies also included within this category.

Bleached staghorn





EXAMPLES OF CORAL GROWTH FORMS

These photos show examples of different coral growth forms (the general shape of the coral), to assist you in choosing coral types in the optional fields to describe which types of corals are most affected by bleaching, those that have a minor affect and those that were not affected by bleaching.

Massive corals – 'brain corals' or Porites. Often look like a boulder, may be round or lumpy.

Porites grow large, up to several metres across.



Foliose corals – 'lettuce' or 'cabbage' corals. Have thin blades overlapping each other





EXAMPLES OF CORAL GROWTH FORMS

These photos show examples of different coral growth forms (the general shape of the coral), to assist you in choosing coral types in the optional fields to describe which types of corals are most affected by bleaching, those that have a minor affect and those that were not affected by bleaching.

Encrusting corals – form a layer growing over rocks or other coral & taking the shape of what is underneath them



Soft corals – soft corals are flexible, leathery and don't have a hard skeleton. There are many different types.





AIMS CORAL BLEACHING APP PAPER DATASHEET – AN ALTERNATIVE WAY TO RECORD DATA

What if I can't use the app?

If you don't have a suitable device, or prefer not to use the app, we also have a datasheet that can be printed and filled in. A PDF of the datasheet is included with this document. The datasheet contains similar information to the bleaching app and can be scanned and emailed back to AIMS. We can then upload the data for you. Any observations returned are valuable to us and will be much appreciated.

What will I need?

A printer, pen and paper, to print and fill in the datasheet. A scanner/camera to email the completed datasheets to AIMS.

Please return completed datasheets and associated photographs to Defne Sahin: d.sahin@aims.gov.au

Date Observer				Notes						
Region Reef name Site name + coordinates (Lat; Long)										
Habitat (please circle)	Depth (m)	Total Coral Cover (please circle)	% all corals bleached (please circle)	% coral growth forms bleached (tick box)	<1%	1- 10%	11- 30%	31- 60%	61- 90%	>90%
Reef Flat		<1%	<1%	Plate, table corals						
Reef Crest		1-10%	1-10%	Branching, staghorn corals						
Reef Slope		11-30%	11-30%	Massive, brain corals						
Lagoon Floor		31-60%	31-60%	Foliose, cabbage corals						
Lagoon Bommie		>60%	61-90%	Encrusting corals						
AD636			>90%	Soft corals						