

COMMUNITY BITTERN



MONITORING

A WORKBOOK FOR ACTIVE BITTERN BOOM MONITORING

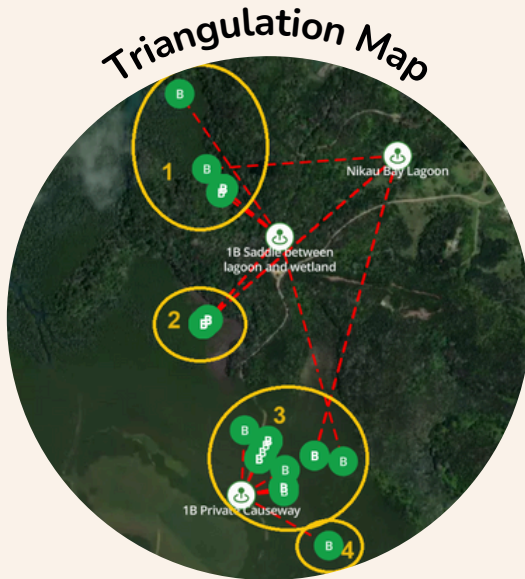

LOVE BITTERN
PROJECT

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WHAT IS ACTIVE MONITORING

Groups use Active Listening or Triangulation to estimate the number of individual booming males in a wetland.



Ideal for wetland areas where you have:

- safe access to the wetland in the dark.
- at least two listening locations (stations) 500m apart.
- a team (minimum 2 people) of volunteers who can listen on the same day and time i.e at dawn or dusk for 1 hour.
- a clear weather window to repeat the counts for three days during the listening window (date range).

What is triangulation?

Mapping the position of the bird (green circles above), using three reference points 1) the listeners location (pins above), as well as the 2) bearing and 3) distance recorded.

WHERE TO SET STATIONS

What is a station

A station is a listening location that is selected to carry out repeat monitoring.



Safety first!

Make sure you can get to and from the site safely in the dark without disturbing the bittern!

Selecting your site

Male bittern may have a home territory which they will defend (likely because there are females present) by booming to keep other males away or attract (more) females.

These sites aren't necessarily the same place as they are seen foraging.

Try to qualify your sites by either

- listening at dawn and dusk during the early spring to confirm males booming (this can be done with acoustic recording devices or in person)
- or look for a site with a large undisturbed area of dense reeds or rushes close to places they have been seen foraging **eg. salt-marsh, raupo fringed lake,**

ACTIVE MONITORING TIMING



Active listening survey's are usually carried out at dawn, at dusk or both - over 3 days during peak booming season in September, October and early November

- **At Dawn** - one hour before your local sunrise
- **At Dusk** for 30 minutes before and after your local sunset.

Evenings tend to be a more practical time for volunteers, this way you can walk in during daylight and get set-up before it gets dark.

If you are familiar with your listening locations (stations), dawn is still an option or both dawn and dusk if you're really keen!

Your 3 days don't have to be consecutive days, but try to listen on the same dates and time as the rest of your team.

OUR PLAN

As a team we will target ..

Days between (give a range of days, or dates)

Listening at (eg At Dusk)

ACTIVE MONITORING PLANNING

Weather Contingency

Heavy rain or strong winds can stop us from hearing calls effectively. Its a good idea to set a postponement date or alternate date range that your team can put in their calendar as a back up and let them know how you will notify them.

You will be notified by

Our back-up dates are

Health & Safety

- Dress for unpredictable spring weather
- Know your route to and from your listening station
- Take a fully charged mobile phone
- Take something to drink and quiet snacks
- Tell a buddy or someone at home where you are and when you'll be back.

I understand the risks and

- accept responsibility
- will ask for help if unsure

Gear Checklist

- Torch
- Fully charged mobile phone
- Datasheets &/or app open
- Pencils
- Warm Clothing

• Optional / as required

- Rain Jacket
- Gumboots *
- GPS*
- Chair *
- Binoculars *

ACTIVE MONITORING RECORDING OPTIONS

Using the app

Test the app a day or two before

If you are using The Conservation Hub app, please log in and test how to enter and save the data. This will also load your station and maps in case you go offline.

Practise and raise any questions at least a day before!



Your station is

Your Coordinator is

Open the app before you go

If you go offline it will all be loaded and revert to offline mode.

Manual Forms

Even if you are using the app take manual forms as back up.

Review the instructions and forms and practise recording using them before you go.

Here's a tip!

Give each person a printed map so they can mark where they think the call came from as well.

ACTIVE MONITORING

ON THE DAY

Check and go

Check the weather before you go,
check your gear

Check for any updates.

Leave for the site in plenty of
time to get set-up ready to record
at the designated time.

Get to know your site

Get familiar with the site,
landmarks and features that you
can use to judge where a bird is
calling from.

If your using the app you only
need to drop a pin where the bird
is calling from and the bearing
and distance calculates for you.

If your using a manual form you
will need to be able to identify
where north is and judge the
bearing and distance.

Be consistent

Always record from the same
spot



Site / session details

Fill in the site details/session data
before you begin.

Note anything else that you think
might be valuable information or
if anything changes.

Take photos if you can!

Do's and don'ts

Avoid making unnecessary noises
and dont mimic or play bittern
booms or calls of any other
animals.

Use your torch as little as
possible.

ACTIVE MONITORING RECORDING BOOMS

Key information

When you hear a bittern boom record:

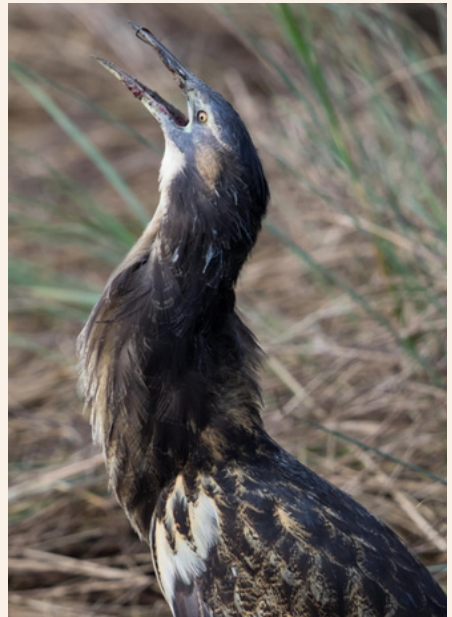
- time (select current time in the app)
- position on map in the app
OR
 - bearing -direction the call came from (N, SW, NE)
 - distance away estimated in metres
- How many booms in a sequence?
- How many sequences?

The male bittern inhales then booms in a string of 'whoom's' then pauses - this is a sequence.

Dont count the inhale in the number of booms.

Do count a croaky, hiccupy attempt and make a note!

Only the male bittern booms. A boom is a resonant sound more like a 'whoom' and is similar to the noise that is made when you blow over the top of a glass bottle amplified! Early in the season or if the male is more juvenile it can sound more like a hiccup or a croak.



SUPPLEMENTARY INFORMATION

ACTIVE MONITORING

1. Record your session data

In the app or on the form record the session data (your observations about weather, noises etc) and save it as a draft.

Update your session data at any point as weather, noises or other observations change.

2. Identify individuals, where you can

If you think you are hearing two or more males booming use the ID to mark them Male 1, Male 2 and so on,

If you suspect one of your bittern has moved please make a note so we can use this information to help determine the number of individuals,

3. Notes - record other activity

Record any other bittern activity that you see like another bittern flying in towards a male booming, a bittern foraging, flying away etc

Any other notes about what you hear or see that impact the survey should be recorded as well. eg. presence of a Harrier Hawk or other disturbances.

PRODUCED BY



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