

Closer to Nature - The use of nature identification (ID) Apps on phone and tablet devices – A review, 2020



Dementia Adventure are often asked about different ways to bring people closer to nature and to bring the outdoors indoors.

The questions come from people experiencing our holidays, those who are simply curious, as well as organisations we work with in the green and social care sector

who want to provide more nature and outdoor experiences for people living with dementia and family members.

The use of straightforward, mostly free to download nature identification apps, for use on phones or tablets is something to consider. For example, a wildflower may catch your eye, a particular bird song captures your attention, or you take a picture of a butterfly. You may try to identify a sight or sound on the spot with an app, or take more time with your photo when you get home. And by doing this in the home you are revisiting and extending that nature experience.

Fiona Wynde (with expertise in field biology as well as working with the Alzheimer's Society Dementia Friendly Communities Programme - East Of England) teamed up with Dementia Adventure to produce this short review of nature ID apps. In this report we have listed the pros and cons of these apps and provided a thumbs up 'acorn' for those that seemed to show most potential. We have also included comments from our DA volunteers (who assist on our supported holidays) about how they might use the apps.

The use of ID apps should be considered around personalised support and what interests a person. It may not suit everyone but with the right person in the right place, it can support that close up nature experience and make all the difference to a person's day, and possibly a focus for something new for the future.

Our special thanks to Fiona Wynde and her contacts for producing this valuable piece of work.

Review of nature ID Apps for Dementia Adventure

Fiona Wynde, June 2020

This short review covers a small list of particularly useful apps around those ‘intimate nature experiences’ to help us better enjoy the world around us – from the perspective of a person with dementia and their supporters.

It’s a list created from online articles and personal recommendations from naturalists who enjoy using technology to explore and record nature. Three Dementia Adventure Volunteers kindly added to the review: Caroline Buttolph, Paul Charlish and Trevor Gibbs. Many thanks to them for their time and input.

The apps were reviewed for the following features:

- Easy to download and use
- Intuitive and appealing
- Free versus paid for
- Type of nature
- Additional health or conservation benefits

There are two main types of technical platform referred to in the review: IOS and Android.

- **IOS** works on Apple products such as iPhones and iPads and you can download the app from the **App Store** on your iPhone or iPad.
- **Google Android** is used on smartphones and tablets not made by Apple and you can download the app from the **Google Play Store**


Most of the apps are available in both versions but two are only available on Android smartphones and tablets.

Part 1 of this report is a summary of key pros and cons of the apps. Apps that the author and reviewers particularly liked, are marked with an acorn.



Part 2 has more detail on the apps and some screenshots. It also includes an additional app, designed to record features of interest on a walk (Ramblr) which could be used by organisations with access to open space to record a nature walk.



Part 1


App details	Cost	Access to personal information	Pros	Cons
Bee ID (Northumberland Wildlife Trust) Category: Insects/bees Available from: Google Play store only 	Free	You do not have to allow access to your location but you will see a frequent error message. You can ignore it and move on If you do allow access your records can be submitted to the iRecord conservation database	Straightforward ID tool based on the pattern of the colours on the thorax and abdomen Set up so that records can be submitted to iRecord	A bit text-heavy in places
BirdNET bird sound identifier Category: Birds Available from: Google Play store only	Free	Needs access to your location and permission to record audio to work	Created by well-known and respected institutes Gets good reviews by naturalists	Quite technical Sounds need to be uploaded for analysis so identification not instant


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Registered address: Unit 11, Old Park Farm, Main Road, Ford End, Essex CM3 1LN



App details	Cost	Access to personal information	Pros	Cons
Chirpomatic UK (iSpiny) Category: Birds Available from: Google Play store and Apple Apps store 	£3.99	You need to log in so that the app can provide options from the correct country You need to give permission to record audio on your device You can deny access to photos and other media	Clear, uncluttered screens Very intuitive to use Great to be able to click on the options given after analysis and decide if its similar Recordings can be e-mailed to website to help improve detection and contribute to citizen science data	Analysis can take quite a few seconds, which can feel like things aren't working
iSeek from iNaturalist Category: General natural history Available from: Google Play store and Apple Apps store 	Free	There is an option to use app without signing up or giving location App needs access to the camera to work	Allows you to scan a species directly from your phone or tablet Can also identify previously taken photographs Clean and clear sign in and contents pages	Easier to use and more accurate with plants than animals – plants stay still for longer! Results aren't great with birds or mammals Can be difficult to see a phone screen in bright sunlight when live scanning First common name given is often American rather than British

App details	Cost	Access to personal information	Pros	Cons
iRecord butterflies Category: Insects/butterflies Available from: Google Play store and Apple Apps store 	Free	You can use the app without login your location or giving the app access to your photographs and other media	<p>Good clean entry page with clear options</p> <p>Can use a photo taken at the time, or a previously taken photo, then compare with options shown in the app</p> <p>The guide is attractive and clear</p> <p>Some options to help you narrow down the possible species</p> <p>Lots of photographs to help you identify a species and then photographs of similar species to compare with</p> <p>Recording a species contributes to the conservation database held by the Biological Records Centre</p>	<p>Some of the filters within the guide might be a bit fiddly to use initially</p> <p>You do need to sign up to be able to submit records, but it is clear where they are going: the Biological Records Centre, UK</p>

App details	Cost	Access to personal information	Pros	Cons
<p>iRecord grasshoppers</p> <p>Category: Insects/grasshoppers</p> <p>Available from: Google Play store and Apple Apps store</p> 	Free	You can use the app without logging your location or giving the app access to your photographs and other media	<p>Same clear layout as the iRecord butterflies app with clean, uncluttered screens</p> <p>Data is submitted to the UK Biological Records Centre to contribute to conservation</p> <p>The app filters are simple and the ability to be able to play the sound that each species makes is a great – and fun – feature</p> <p>Could be a nice challenge for groups and couples that are keen and will certainly contribute valuable information to the UK records if sightings are submitted</p> <p>The added dimension of identifying species by sounds is an interesting alternative to purely sight-based activity</p>	You do need to sign up if you want to use the app to send your records to the UK Biological Records Centre

App details	Cost	Access to personal information	Pros	Cons
Leps by Fieldguide Category: Insects/lepidoptera Available from: Google Play store and Apple Apps store	Free	You have to sign up using e-mail	Gets some good reviews from naturalists on accuracy	First page is a social media style timeline – cluttered Not clear how to upload photographs. There is a ‘publish’ button, which adds to the feeling that your activity is public
Nature notes within Go Jauntily Category: Mental health/wellbeing Available from: Google Play store and Apple Apps store	Free	You have to sign up and join the community to use the app	Can be used to create your own walks with photos, routes and descriptions Could be used as a personalised reminiscence tool People can share their walks and you can see walks that have been shared near you to inspire you	Set up, login and ‘walk through’ screens are potentially a bit cluttered Automated ‘chatty’ style responses to user inputs are frequent and aim to persuade you to enable notifications. Possible to bypass, but slightly annoying to do so It isn’t clear where you are posting updates and whether they are public Your list of previous entries is interspersed with a lot of additional text from the app which could be distracting

App details	Cost	Access to personal information	Pros	Cons
<p>Plant snap</p> <p>Category: Plants</p> <p>Upfront cost: Free for 25 identifications per day/ £9.99 per year, or £14.00 lifetime.</p> <p>Available from: Google Play store and Apple Apps store</p>	Free to use up to 25 times a day.	You have to sign in using Google, Facebook or e-mail to enable the app to work	Claims to let you identify any plant, anywhere in the world!	<p>The home page is a bit cluttered and it was hard to get out of the tutorial</p> <p>There are a lot of adverts which are distracting and could potentially take you out of the app if you click on that area</p> <p>There is a social feed tab which shows people's contributions from around the world. This is potentially distracting.</p> <p>The premium version claims to give you access to botanists to help you identify plants, but doesn't tell you who they are or what qualifications they have</p>

App details	Cost	Access to personal information	Pros	Cons
Swift mapper Category: Birds/swifts Upfront cost: free Available from: Google Play store and Apple Apps store 	Free	The swift mapper needs access to the phone's location to work	Good activity, and conversation starter A valuable conservation activity Clear, clean screens	Not an identification guide
Tree ID - British trees (Woodland Trust) Category: Plants/trees Upfront cost: Free Available from: Google Play store and Apple Apps store 	Free	You can use the app without login your location or giving the app access to your photographs and other media	Nice clear key to both native and non-native trees Let's you identify trees from different features such as leaf, flower, twig, bark - and you can select more than one to use Species guides give multiple photographs of different elements Some nice additional information such as mythology and symbolism and uses, which could be good conversation starters	Information laid out like a field guide Could be hard to read on a phone, in strong sunlight, especially where there is green text on a white background

App details	Cost	Access to personal information	Pros	Cons
Warblr *Note: this app wasn't downloaded to test. Comments are based on information given by the developers and online reviews. Category: Birds Available from: Google Play store and Apple Apps store	£4.99	Not tested	Identifies birds by their sounds App screens look fairly clear and accessible Developers making data collected via app available for research and conservation	Isn't getting great reviews for reliability or accuracy currently

Part 2

Bee ID (Northumberland Wildlife Trust)



Category: Insects/bees

Upfront cost: Free


Available from: Google Play store only

- Produced by Natural History Society of Northumberland.
- Nice straightforward ID tool based on the pattern of the colours on the thorax and abdomen.
- These two choices then give a selection of possible species. Clicking on the species name gives more info and a photograph.
- First page has general info. Button to get to the key is slightly hidden in a bar at the bottom of the page.
- Set up so that records can be submitted to iRecord, improving conservation data collection.

Bumblebees of Great Britain and Ireland





What are Bumblebees?




Bumblebees are large, colourful and attractive insects which are harmless to most people. There are around 24 species in Britain and of these 7 are common and widespread. Bumblebees have round bodies covered in soft hair (long branched setae) called pile, making them appear and feel fuzzy. They have aposematic (warning) coloration, often consisting of contrasting bands of colour, and different species of bumblebee in a region often resemble each other in mutually protective Müllerian mimicry. Bumblebee populations are declining and this is an issue as they are important pollinators.

The Difference Between Honey Bees, Bumble Bees, and Wasps?



Identification Help, Anatomy identification.

This application uses the colouration patterns of the thorax and abdomen to help identify your specimen.







Please select to start the identification process.









ID

Please select the most suitable image from the Thorax selection and Abdomen selection and press the next button.

Please identify Thorax pattern of your specimen.

<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	

Please identify Abdomen pattern of your specimen

<input type="checkbox"/>		<input type="checkbox"/>	
<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
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Next

Home

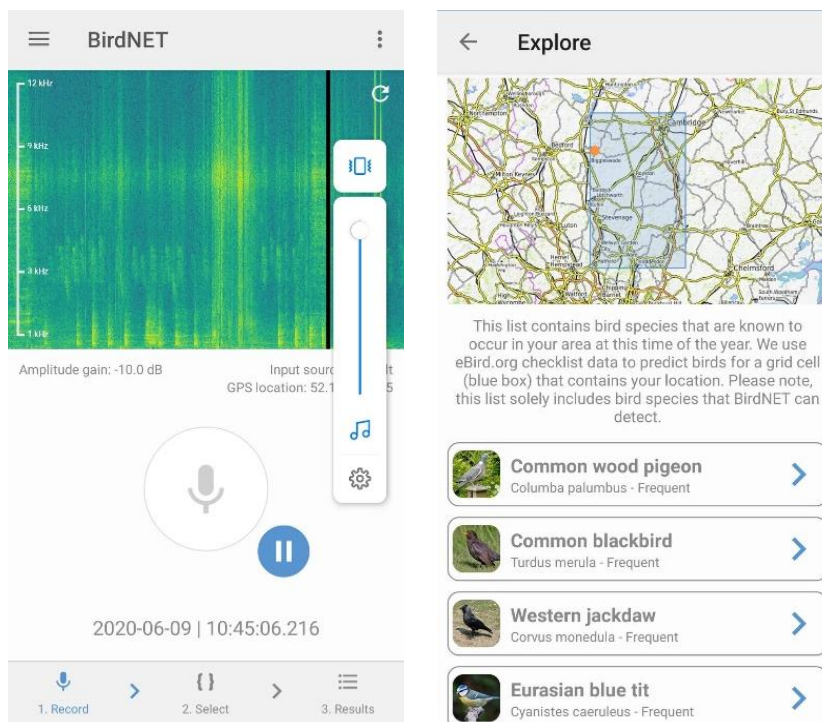
BirdNET bird sound identifier

Category: Birds

Upfront cost: Free

Available from: Google Play store only

- Research prototype.
- Record sound by pressing the 'Mic' button. You then need to select a portion of the recording within a visualisation of the sound ('spectrogram'). This needs to be submitted to BirdNET servers to analyse.
- Much more technical to use and interpret than Chirp. Gets good reviews from birders.
- Shows a map of birds that occur in your local area, returns a long list of species.
- Probably an app more suited to very enthusiastic amateurs or professionals than for generally enhancing engagement.



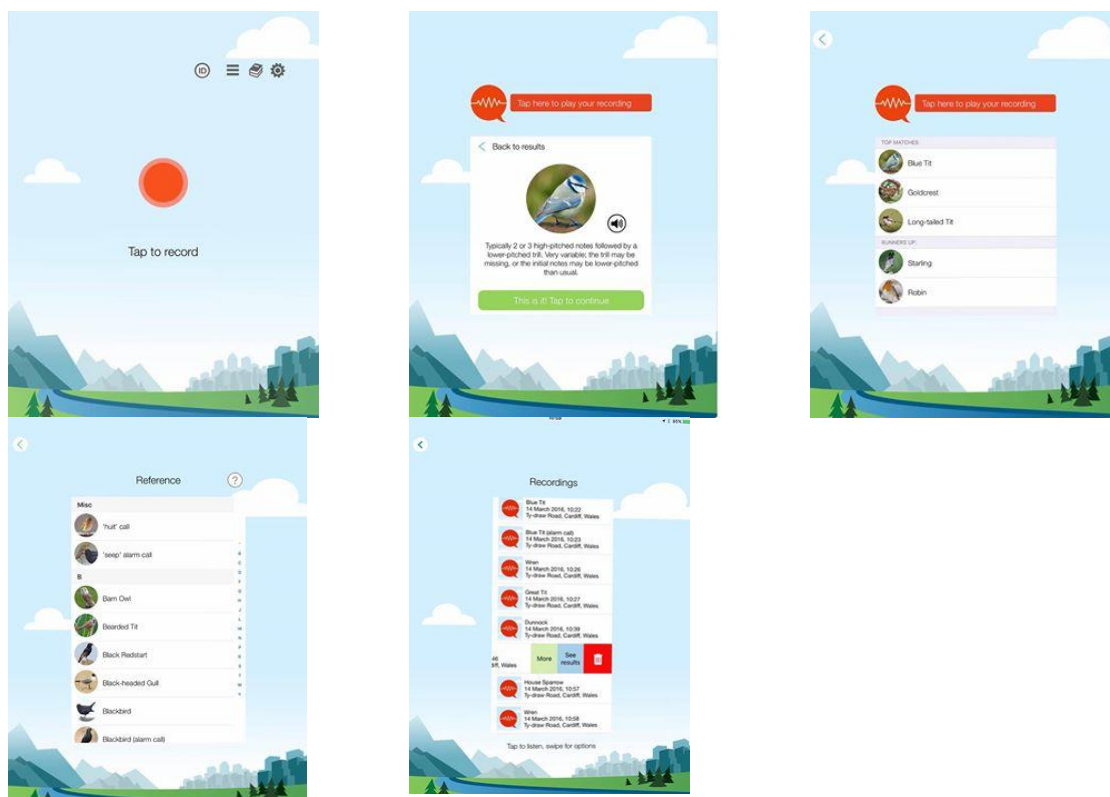
Chirpomatic UK (iSpiny)

Category: Birds

Upfront cost: £3.99

Available from: Google Play store and Apple Apps store

- Nice clear, uncluttered screens.
- Very intuitive to use.
- Great to be able to click on the options given after analysis and decide if its similar.
- Saves the recordings on your device. Be aware that this might fill up memory on your device if you don't delete them. Discarding the recordings deletes the record so you might want to keep a separate record of your observations.
- Analysis can take quite a few seconds to complete.
- Recordings can be e-mailed to website to help improve detection and contribute to citizen science data.



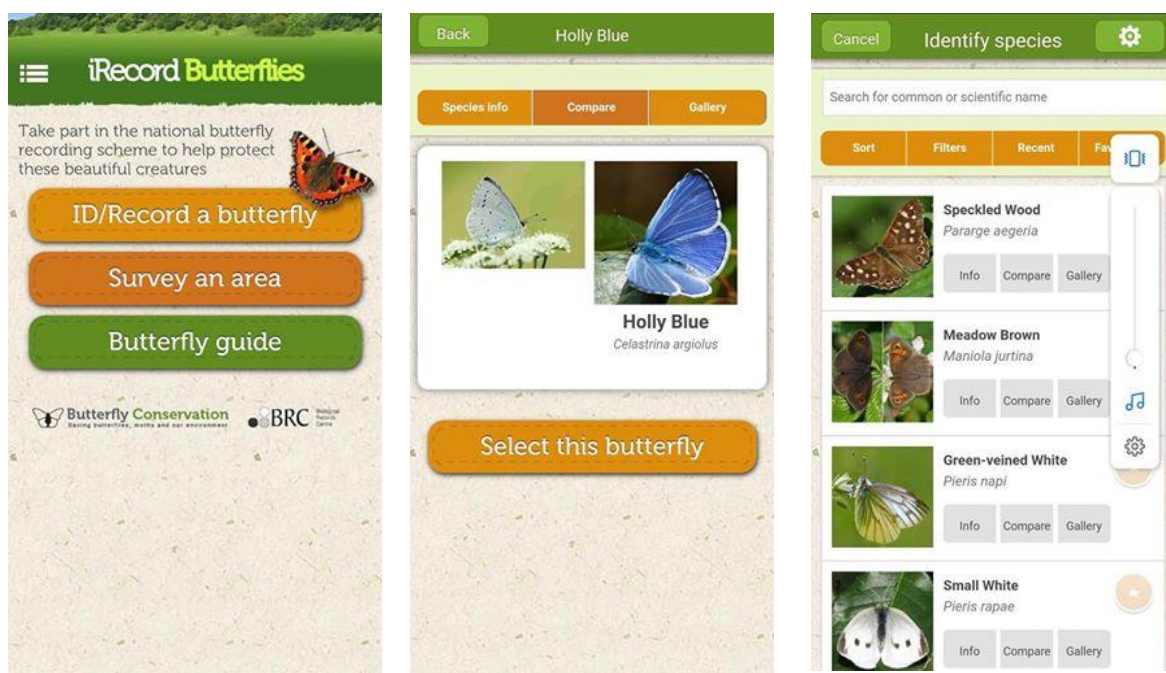
iRecord butterflies

Category: Insects/butterflies

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Produced for the Butterflies for the New Millennium recording scheme, with Biological Records Centre and Butterfly Conservation.
- Nice clean entry scheme with clear options.
- Can use a photo taken at the time, or a previously taken photo, then compare with options shown in the app.
- The guide is attractive and clear. Some options to help you narrow down the possible species. Some of the filters might be a bit fiddly to use initially.



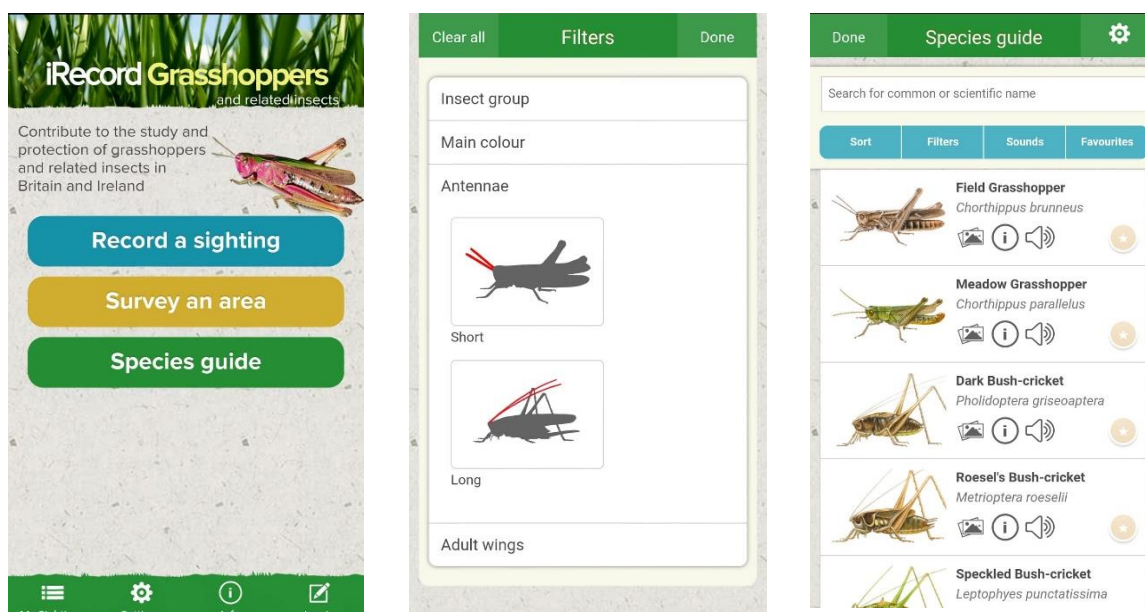
iRecord grasshoppers

Category: Insects/grasshoppers

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Same clear layout as the iRecord butterflies app with clean, uncluttered screens.
- Data is submitted to the UK Biological Records Centre to contribute to conservation.
- The filters are simple and the ability to be able to play the sound that each species makes is a great – and fun – feature.
- Could be an interesting challenge for groups and couples that are keen and will certainly contribute valuable information to the UK records if sightings are submitted.
- The added dimension of identifying species by sounds is a nice alternative to purely sight-based activity.



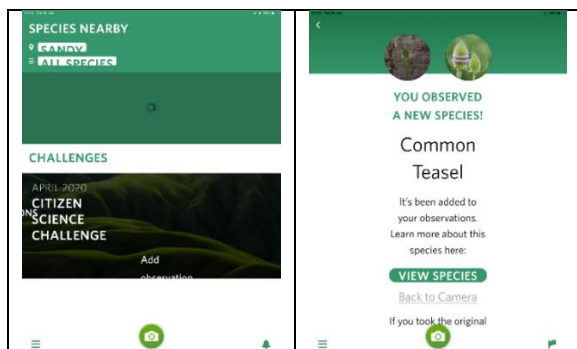
iSeek from iNaturalist

Category: General natural history

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Created by California Academy of Sciences and National Geographic.
- Allows you to scan a species using your phone or tablet and it will identify it as far as possible using a database of photographic records.
- You can also use a photograph you've already taken - so you could take a photograph of something that is hard for someone to get to and then bring it closer to identify together.
- The sign in and content pages are fairly clean. The 'scan species' button (camera symbol) is easy to see.
- A tablet can be easier to use than a phone because you have to move the camera to different angles to improve the recognition. It's easier to see what's in focus on a tablet, especially on a sunny day.
- As you scan the suggestions get more specific. Hopefully it will propose a species, prompt you to take a photograph for your records and give you information about the species.
- It gives the best results with plant species – they stay still! Other wildlife can be less accurate and is often only identified to Family. Birds and mammals can be wildly inaccurate.
- You can review a list of your records in a nice clean format, with dates you observed them. Could be a good conversation starter.
- There are badges and challenges, which have the potential to feel patronising, but they are 'awarded' in a low key way and are quite appealing.



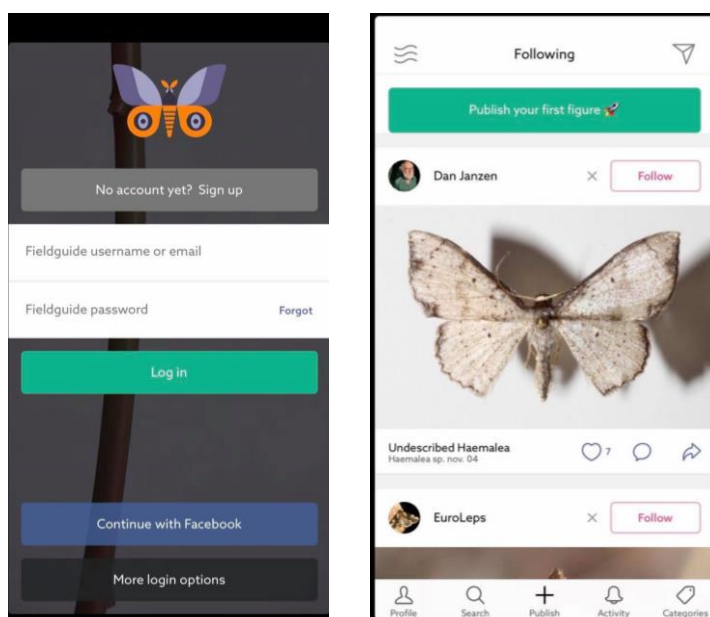
Leps by Fieldguide

Category: Insects/ lepidoptera

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Gets some good reviews from naturalists on accuracy.
- American programme so some common names differ from UK.
- Have to sign up via e-mail.
- First page is a social media style timeline.
- Upload photographs to have them identified by AI technology.
- Not clear how to upload. There is a 'publish' button, which adds to the feeling that your activity is public.



Nature notes within Go Jauntily

Category: Mental health/wellbeing

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Use the Go Jauntily sections to curate your own walks with photos, routes and descriptions. Nice for a personalised reminiscence tool.
- People can share their walks and you can see walks that have been shared near you to inspire you.
- There is a 'Nature Notes' section to record things you notice.
- Set up, login and 'walk through' screens are potentially a bit cluttered and you have to 'join the community' to use the app.
- Automated 'chatty' style responses to user inputs are frequent and aim to persuade you to enable notifications (regular use is part of the shown benefits). Possible to bypass, but slightly annoying to do so.
- It isn't clear where your notes are being posted. The auto text tells you that you are posting to the 'biosphere'. It isn't clear what this is.
- You can scroll back to see previous entries in the Nature Notes, but they are interspersed with a lot of auto text. Might be easier if it was just a clean diary of observations and photos



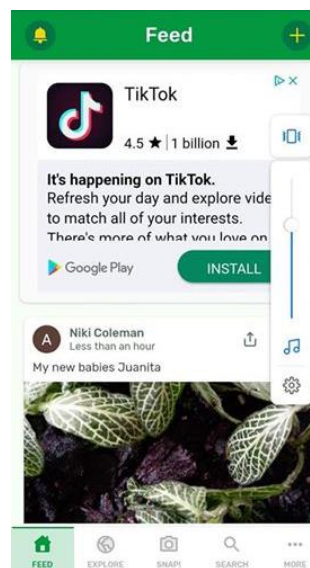
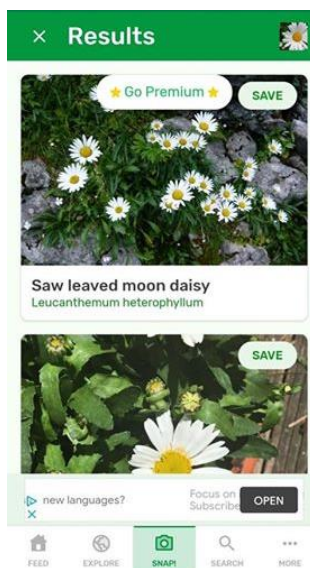
Plant snap

Category: Plants

Upfront cost: Free for 25 identifications per day/ £9.99 per year, or £14.00 lifetime.

Available from: Google Play store and Apple Apps store

- Claims to let you identify any plant, anywhere in the world!
- You have to sign in using Google, Facebook or e-mail to enable the app to work. If you use Facebook, you can alter the settings so that they don't get to see your e-mail address.
- The home page is a bit cluttered and it can be hard to get out of the tutorial.
- There are a lot of adverts which are distracting and could potentially take you out of the app if you click on that area.
- If you want to use the app more than 25 times in one day, you have to pay for the Premium version.
- There is a social feed tab which shows people's contributions from around the world. Potentially distracting.
- The premium version claims to give you access to botanists to help you identify plants, but doesn't tell you who they are or what qualifications they have.
- The app is designed to send notifications to your email which could be annoying. However, it is possible to disable this feature.



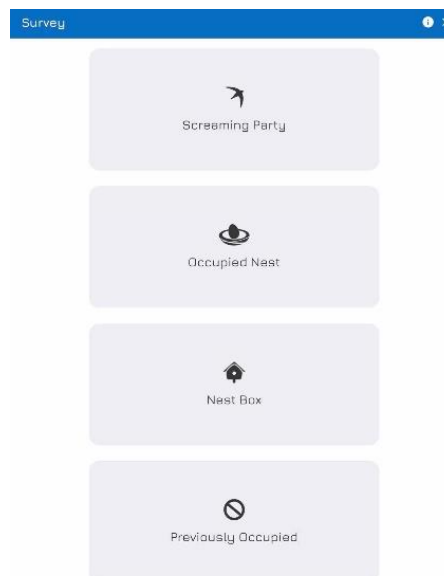
Swift mapper

Category: Birds/swifts

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- A citizen science conservation mapping tool, rather than an identification guide. Could be a fairly easy activity and conversation starter, particularly if people remember swifts being around in previous years.
- Produced to support the RSPB Swift Programme. Data provided to anyone interested in swifts and their conservation.
- Knowledge that your contributions are valuable to conservation.
- Quite clear, clean screens inviting you to log sightings of screaming parties, occupied nests, nest boxes and sites where you've previously seen swifts but they are no longer there.



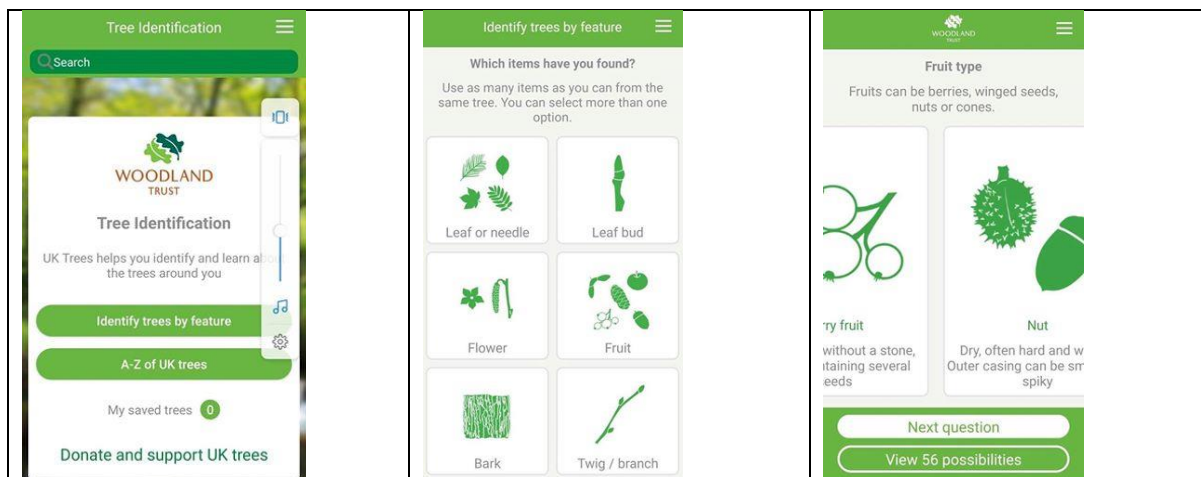
Tree ID - British trees (Woodland Trust)

Category: Plants/trees

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Information on both native and non-native trees.
- Identify trees by feature or browse A-Z of UK trees.
- Let's you identify trees from different features such as leaf, flower, twig, bark - and you can select more than one to use.
- Nice clear key (although green writing on white background might be difficult for some).
- Species guides give multiple photographs of different elements.
- Information laid out like a field guide. Could be hard to read on a phone, in the sunlight.
- Some interesting additional information such as mythology and symbolism and uses, which could be good conversation starters.
- Map feature which shows trees that have been recorded using the app and whether they are ancient or notable.



Warblr

Category: Birds

Upfront cost: £4.99

Available from: Google Play store and Apple Apps store

- ***Note:** this app wasn't downloaded to test. Comments are based on information given by the developers and online reviews.
- App screens look fairly clear and accessible.
- Developers making data collected via app available for research and conservation.
- Developers claim 95% accuracy with 'optimal' conditions.
- Isn't getting great reviews for reliability or accuracy currently.

This picture shows what some of the screens in Warblr look like. It is taken from their website.



Ramblr

Category: Create a walking route

Upfront cost: Free

Available from: Google Play store and Apple Apps store

- Designed to let you create a walking route with a story.
- Fairly easy to set up, including login from Facebook and Google.
- Allows you to track your route and add photographs, video and descriptions along the way.
- Allows you to follow a route that's been set up.
- Adding photos is easy. You can add comments but you need to click the comment to see it.
- Very small areas, like a small garden, aren't at a sufficient scale for the GPS to work properly and can produce a random set of lines rather than your route.
- A 0.1km circular route works ok.

