



BURROW RECORDER

A smartphone app for capturing impacts of burrowing invasive species on erosion

✓ iOS
✓ Android

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Why is it needed?

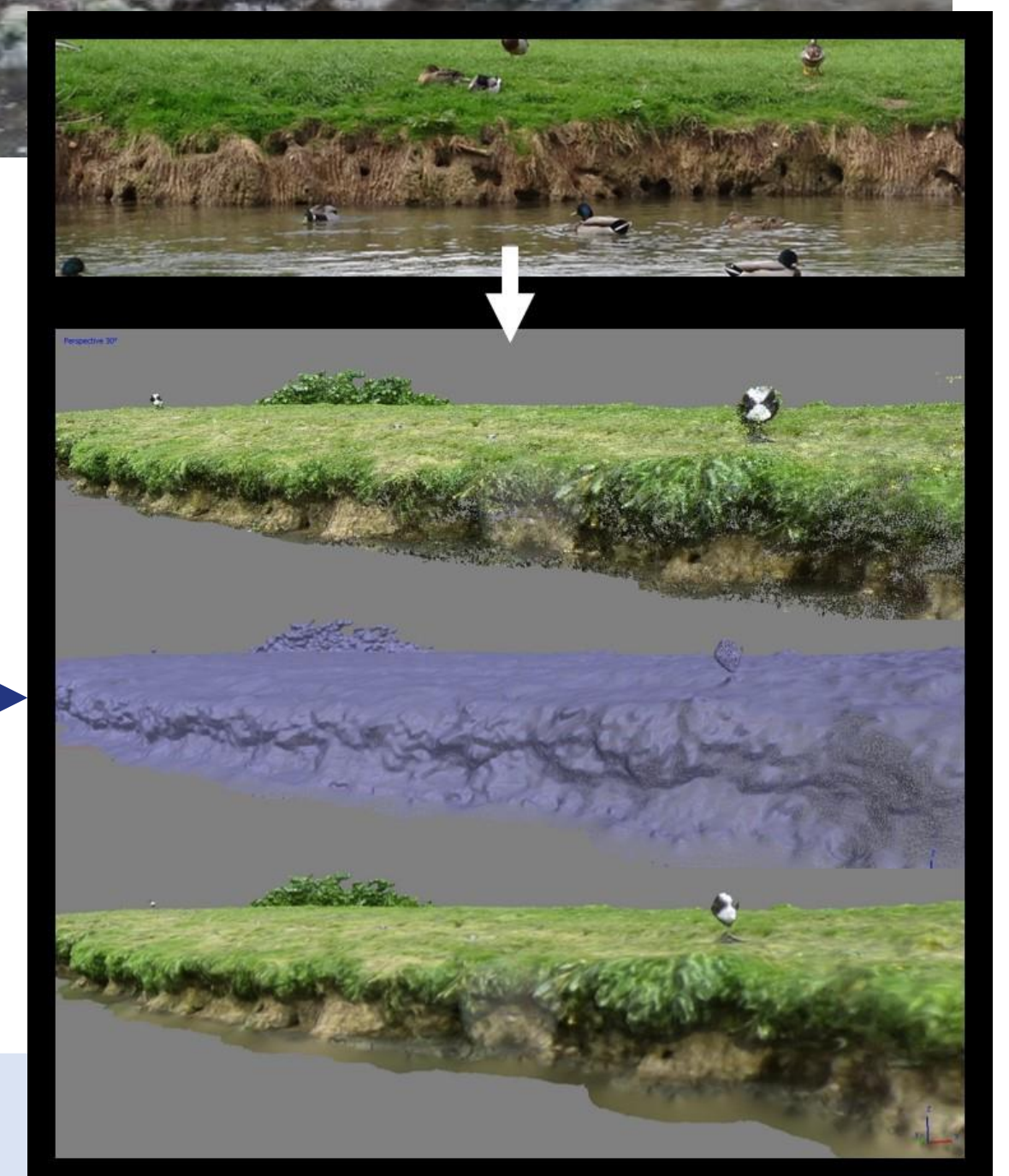
- Burrowing invasive species have been linked with erosion and flood risk^{1, 2} but little is known about the extent of impacts
- The app captures burrow presence, signs of erosion and site information, building a geolocated database of impacted sites
- Designed for invasive non-native species but applicable to any burrowing species generating erosion concerns

Who can use it?

- **No specialist expertise required⁺**
- Can be used for rivers, artificial channels, lakes, estuaries, saltmarshes*
- Different levels of information recorded according to user expertise and preference
- As a minimum include: location, burrow presence/ absence, photographs
- Adventurous users may upload a full photo survey to support 3D modelling using Structure-from-Motion photogrammetry



Signal crayfish burrows (river bank)



*⁺users must be trained in safe working in aquatic environments
^{*}lake, estuary and saltmarsh components under development*

How do I use it?

- ✓ It is a progressive web app (pwa) accessed like a website but can be added to your home screen
- ✓ Internet enabled device e.g. smartphone
- ✓ Internet access is required to complete the survey
- ✓ Familiarise yourself with the app before a site visit
- ✓ Check location access is enabled on phone/ browser
- ✓ Visit: burrow-recorder.coreo.app
- ✓ Sign up with an email account
- ✓ Click the verification email link
- ✓ Start your survey!

Add to home screen

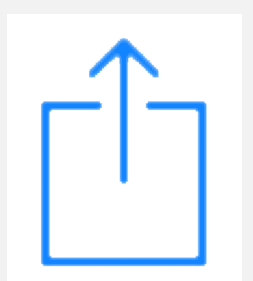
You can add the app to your home screen for easy access. View using the web link and then:

Android:

You will be prompted to install on home screen – accept!**

iOS:

Choose upload icon and select “Add to home screen”



** Do this the first time you are prompted

References

¹Harvey GL, Henshaw AJ, Brasington J and England J (2019) Burrowing invasive species: an unquantified erosion risk at the aquatic-terrestrial interface. *Reviews of Geophysics* 57: 1018-1036. ²Faller M, Harvey GL, Henshaw AJ, Bertoldi W, Bruno MC and England J (2016) River bank burrowing by invasive crayfish: spatial distribution, biophysical controls and biogeomorphic significance. *Science of the Total Environment* 569-570: 1190-1200.



Questions or feedback
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