

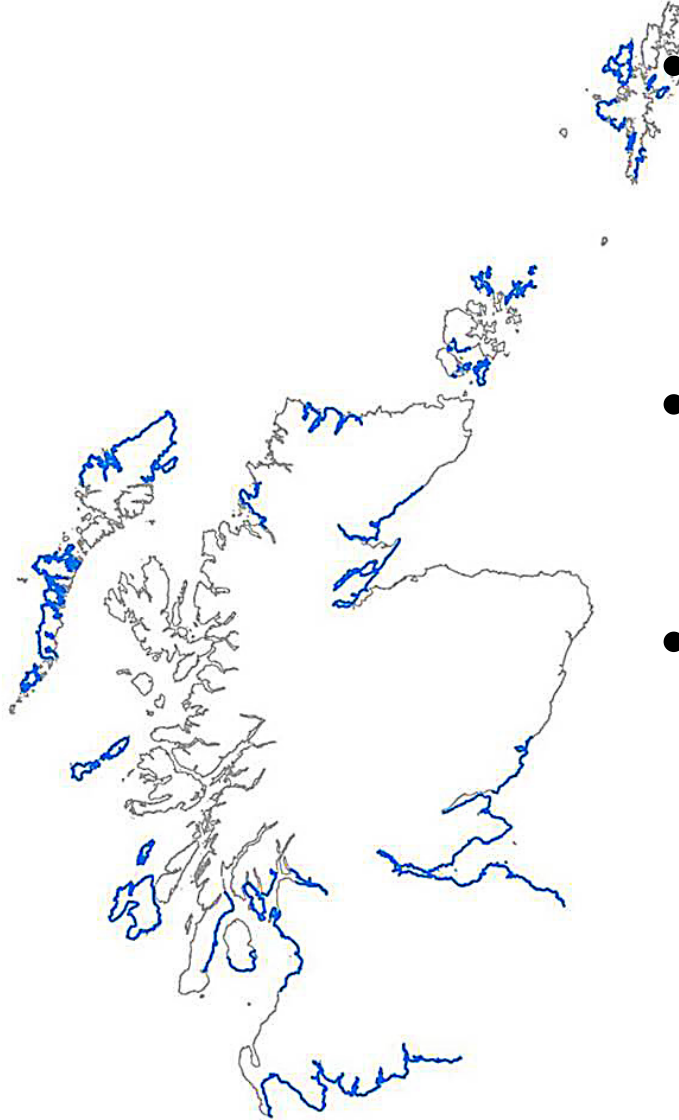
Scotland's
coastal heritage

**SCAPE's citizen
science journey**

Coastal Zone Assessment Surveys 1996-2009



HISTORIC SCOTLAND
ALBA AOSMHOR



- 35% of the coast surveyed
- 12,000 site records
- 4,000 sites with mitigation actions recommended

Sites at risk assessment (2010)

Archaeological
significance

×

Vulnerability

=

Priority

Using national
designation
criteria

Model (GIS)

- proximity to
dynamic coast
- geomorphology
- altitude

1-5 or none

+ Empirical

- surveyor recommendation

2012

2016



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St Andrews



HISTORIC
ENVIRONMENT
SCOTLAND

ÀRAINNEACHD
EACHDRAIDHEIL
ALBA



Fife
COUNCIL



THE CROWN
ESTATE



LOTTERY FUNDED
MAOINICHTE LEIS
A' CHRANNCHUR

Tools for participation



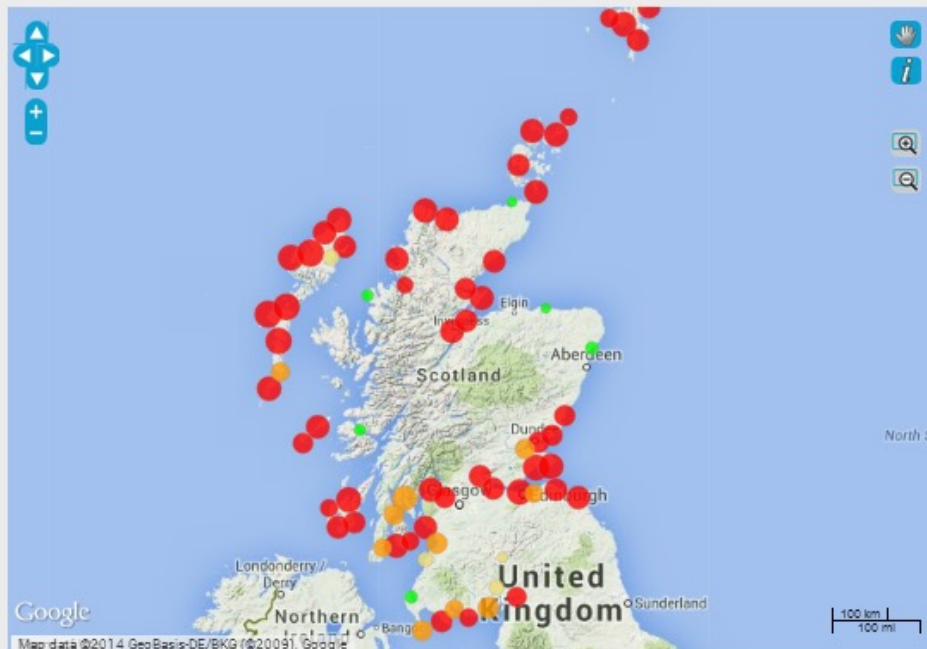
SCAPE
Scotland's Coastal Heritage at Risk

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[Contact us](#)

Sites at Risk




Choose map

- ☐ Google Physical
- ☐ Google Satellite
- ☐ Google Hybrid
- ☐ Bing Road Map
- ☐ Bing Satellite
- ☐ Bing Hybrid

Quick links

[Submit Records](#)



ShoreUpdate

[ShoreUpdate Map](#)

[Add Heritage Site](#)

[Downloaded Forms](#)

[How To Use](#)

















SCAPE

Scottish Coastal Archaeology and the Problem of Erosion



A REVIEW OF HERITAGE AT RISK FROM COASTAL PROCESSES IN SCOTLAND

Results from the Scotland's Coastal
Heritage at Risk Project
2012-2016

Joanna Hambly September 2017

Joanna Hambly ✉ jh105@st-andrews.ac.uk ☎ 01334 462904
The SCAPE Trust, St Katharine's Lodge, The Scores, St Andrews KY16 9AL

<https://scapetrust.org/reports/>

Community Coastal Zone Assessment Surveys 2022 ➡

Home - The SCAPE Trust

https://scapetrust.org

90%

Hi, Joanna Hambly

SCAPE

Home About Projects Sites at Risk Reports Video Blog

New Coastal Heritage Surveys

Join us in new coastal surveys of Moray and Aberdeenshire

More

SCAPE works with the public to research, investigate, interpret and promote the archaeology of Scotland's coast

Facebook Twitter

CoastArch

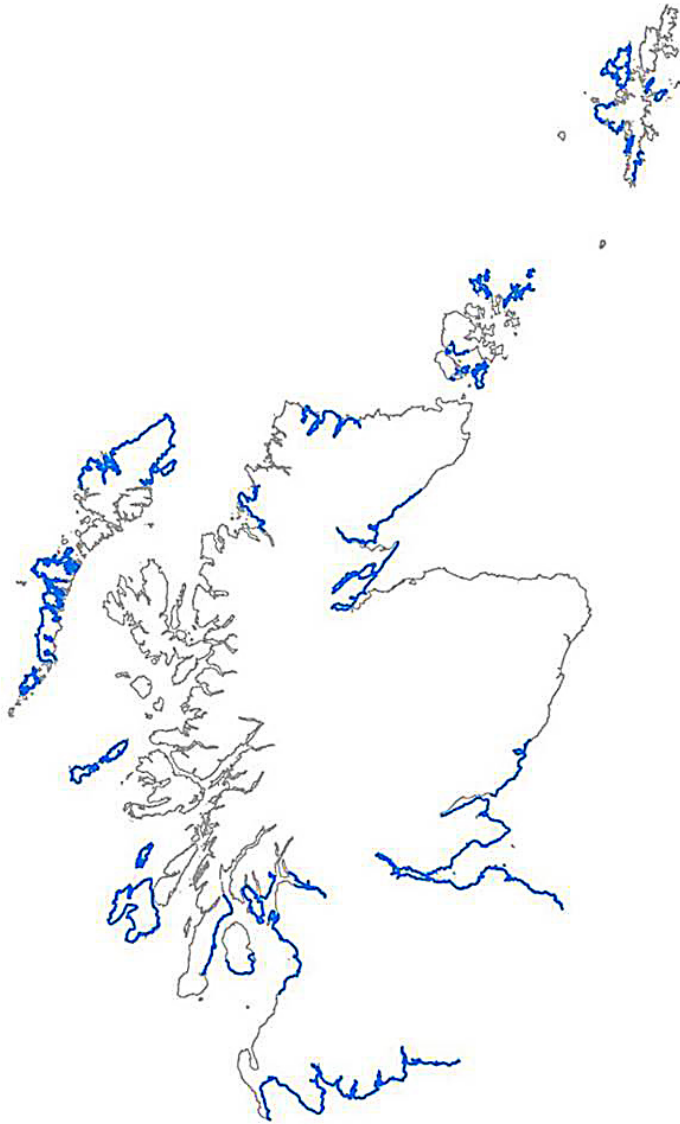
Sites at Risk

Projects

https://scapetrust.org/#

Type here to search

15:50 02/08/2022



- Fieldwork targeted at vulnerable coastlines
- Involves local volunteers
- Prioritises sites at risk during surveys
- Data flows into Canmore and HERs
- Identifies management and research priorities with regional heritage managers



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Targets for fieldwork in 2022



Orange sections of coastline eroding by 2030

Red sections of coastline susceptible to high /very high erosion by 2030

We modelled coastlines most at risk of erosion in 2030 using 2 models:

- 1) a model of coastal susceptibility to erosion (available for whole coast) (Fitton *et al.* 2016)
- 2) a model which projects future erosion rates of the soft coastline. We have used the rate of erosion projections by **2030** (Dynamic Coast, 2021)

References

Fitton, J. M., Hansom, J. D. and Rennie, A. F. 2016. A national coastal erosion susceptibility model for Scotland. *Ocean & Coastal Management*, **132**, 80-89.
Hurst, M. D., Muir, F. M. E., Rennie, A. F. and Hansom, J. D. 2021. Dynamic Coast: Future Coastal Erosion. CRW2017_08. Scotland's Centre of Expertise for Waters (CREW). Available online at: crew.ac.uk/publications.

**What have we
learnt?**



The online
catalogue to
Scotland's
archaeology,
buildings, industrial
and maritime
heritage

Learn More

feedback

<https://canmore.org.uk/>



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Scottish
Historic Environment
Records Forum

PASTMAP

Exploring Scotland's Historic Environment

ENTER

VIDEO INTRO

Find out more
about the heritage
of your local area

Dig deep into the history of places in Scotland and beyond to discover fascinating insights into hidden stories and histories of buildings, towns and cities.

If you're looking for live information about designated sites and places (for example scheduled monuments and listed buildings) please go to the [Historic Environment Scotland Portal](#) for the most up to date data. The PastMap search should not be relied upon to confirm the presence of current designations.

I'm ready to dig deep...



Modern

Look at the locations of Scotland's sites and monuments



Historic

Use historic 19th and 20th century OS maps as a backdrop to historic sites



Aerial

Compare features from the air against what is known in Scotland



Data

Discover where the archaeology, historic buildings and landscapes are located

<https://pastmap.org.uk/>

feedback



Right to roam



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[Home](#) > [About Us](#) > [News](#) > Research shows worth of Scotland's heritage volunteers

ABOUT US

01 June 2016

Research shows worth of Scotland's heritage volunteers

New findings into volunteering and the historic environment revealed as Volunteers' Week Scotland gets underway





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**What motivates our
volunteers?**

ambly SAA 17 Vancouver MP4



Recipe for effective public involvement

INGREDIENTS

A generous handful of:

- Enjoyment
- Interest
- Sociability
- Purpose
- Encouragement
- Personal development
- Feeling part of something

MIX WELL

SCAPE
Scottish Coastal Archaeology and the Problem of Erosion



FINAL EVALUATION REPORT AUGUST 2017

Joanna Hambly ✉ jh105@st-andrews.ac.uk ☎ 01334 462904
The SCAPE Trust, St Katharine's Lodge, The Scores, St Andrews KY16 9AL



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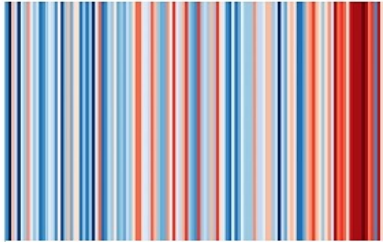
The value of local knowledge

**Taking action is
important**

Projects and Activities

SCAPE has worked with you on many community projects and events that explore, interpret and celebrate eroding archaeological sites around Scotland's coast. Together, we have created new knowledge and inspirational case studies of what can be achieved.

If you know about a coastal site that needs attention or have a brilliant idea get in touch and have a chat with us at any time.



#Climate Heritage Stories

Inspired by the US Parks Service 'Every Place has a Climate Story', SCAPE (Scotland), CHERISH (Wales and Ireland) and CITIZAN (England) created video climate heritage stories for COP26 hosted in Glasgow in November 2021.



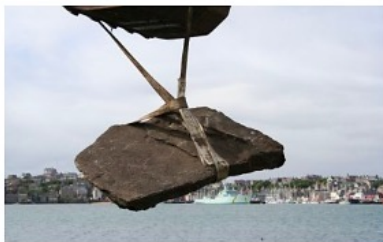
4D Wemyss Caves

The coast between East Wemyss and Buckhaven in Fife is home to the Wemyss Caves, which contain a unique collection of Pictish carvings. Rapid coastal erosion since the mid-20th century is putting the caves and carvings at risk.



Baile Sear, North Uist

Storms revealed Iron Age archaeology on the beach at Baile Sear, a small island off North Uist. Community excavations rescued an incredible story of Iron Age life in a wheelhouse which lasted nearly a thousand years.



Bronze Age Bressay!

Volunteers on the Shetland Island of Bressay excavated a critically endangered eroding Bronze Age burnt mound and moved it stone by stone to the Heritage Centre, saving its story for future generations.



Brora saltpans

Archaeological excavation combined with historical research of a series of stone buildings eroding out of the sand dunes at Brora Back Beach tells the story of 16th, 18th and 19th century salt production on the Sutherland Estate.

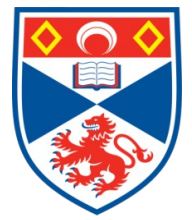


Channerwick Broch, Shetland

Section cleaning, recording and sampling of a broch which has been half-sectioned by the sea at Channerwick Bay, Shetland. This monumental structure was completely unrecorded before it was exposed by a winter storm.



Thank you Questions?



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St Andrews



S C A P E

Quality check of CS/CBM Data

How is data managed and used?

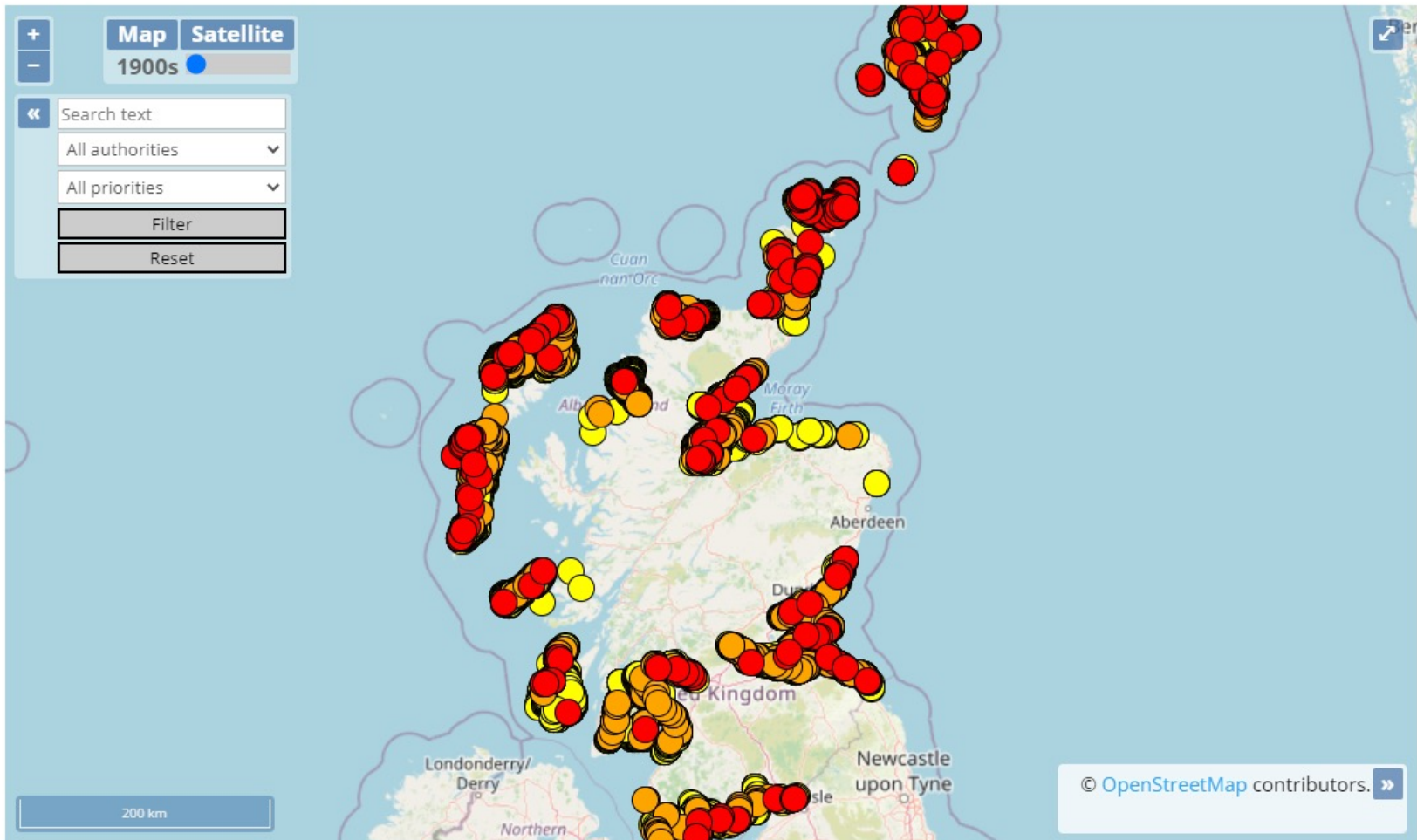
- TRAINING
- GUIDANCE
- MODERATION
- DATA SHARING
- PERPEPTUAL ARCHIVING
- COPYRIGHT AND CONTRIBUTOR AGREEMENT

Web map

<https://scapetrust.org/sites-at-risk/>

Sites map **Login** **Register**

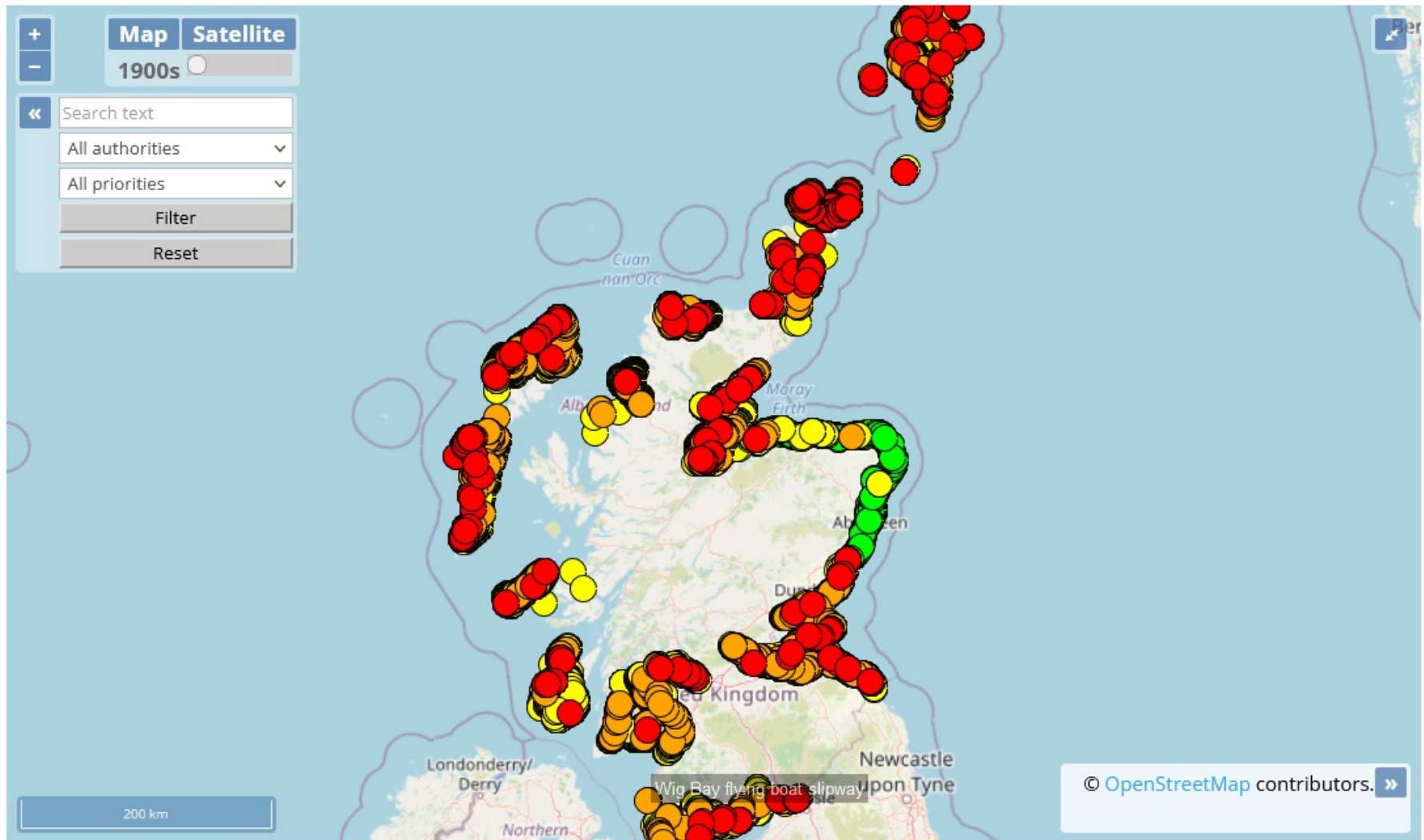
Access the Sites at Risk map wherever you are and use it offline by downloading the free SCAPE app for [Android](#) and [iOS](#). Registration required.



Sites at Risk

[Sites map](#)[Add a new site](#)[Add a new survey](#)[Your profile \(joannahambly\)](#)[Logout](#)

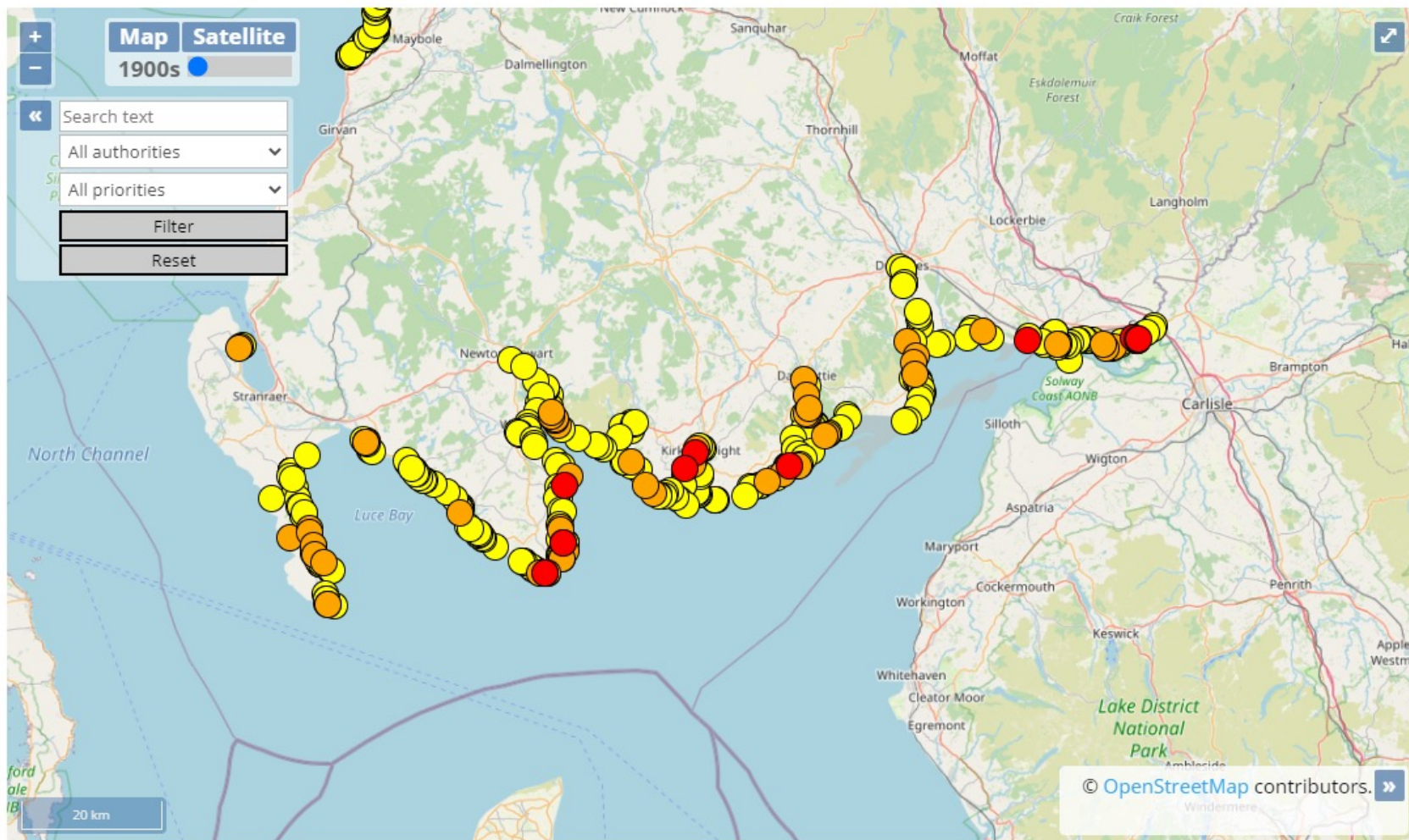
Access the Sites at Risk map wherever you are and use it offline by downloading the free SCAPE app for [Android](#) and [iOS](#). Registration required.



[Export filtered results to CSV](#) | [Download my sites](#)

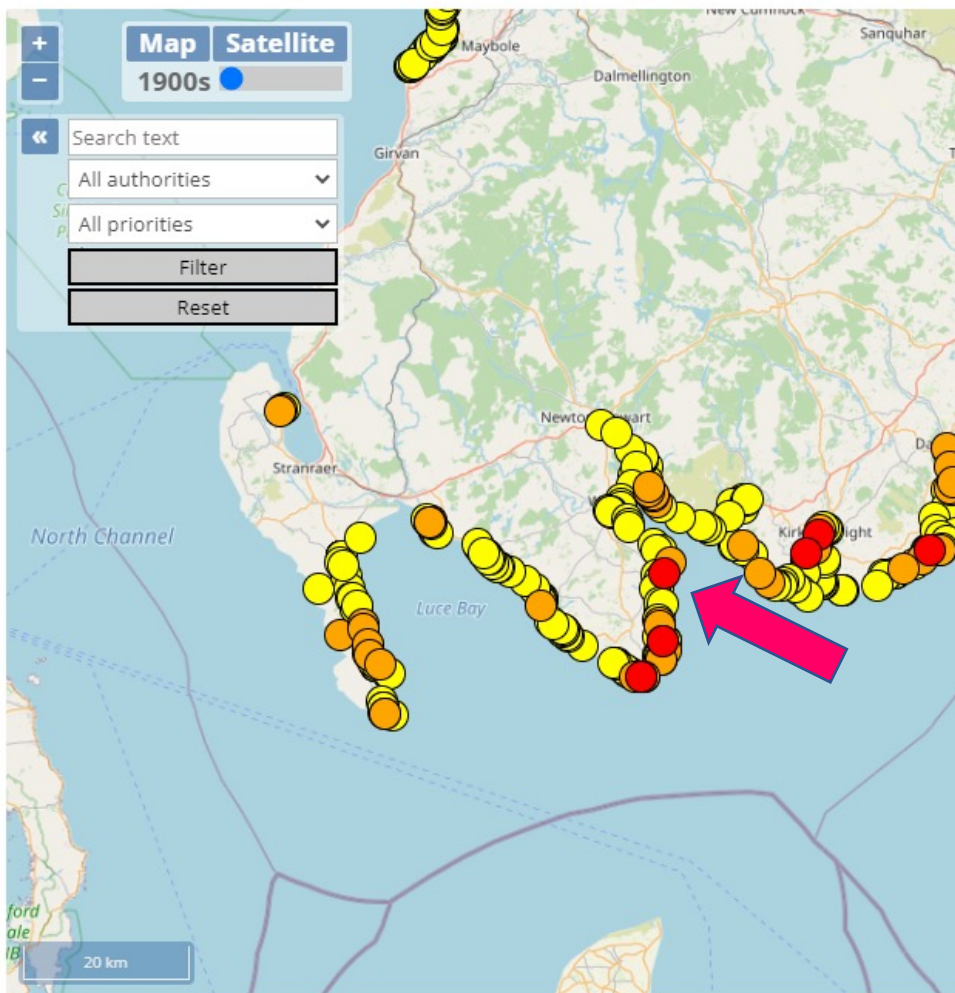
Sites map **Login** **Register**

Access the Sites at Risk map wherever you are and use it offline by downloading the free SCAPE app for [Android](#) and [iOS](#). Registration required.



Sites map **Login** **Register**

Access the Sites at Risk map wherever you are and use it offline by downloading the free



Cairnhead Mulberry Beetle (13904)

Site URL: <https://scapetrust.org/sites-at-risk/site/13904>

[Edit site](#) [Add an update](#)

Condition

Priority	1
Site type	Pontoon
Period	Second World War
Canmore ID	287700
HER ID	MDG23003
Authority	Dumfries and Galloway

Description

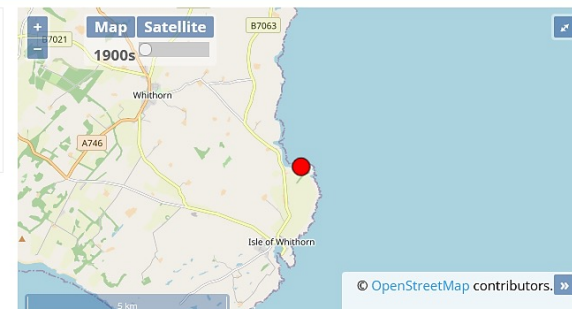
Description

A boat-shaped 'Beetle', one of the reinforced concrete pontoons which supported the floating roadway of the Mulberry Harbour prototype which was tested at Cairnhead Bay prior to D-Day. Sitting at the low water mark on the rock platform and cobble beach, lying roughly N-S, measuring approx 15m by 7m and standing c2.5m high. The iron and wood reinforcement straps around the 'hull' are visible and still attached in places though are deteriorating with occasional detached fragments on the surrounding beach. Currently intact other than a single small hole c.0.5m in diameter in the top. Appears to be an unusual shape of pontoon; the other extant examples at Garlieston Bay and Port Whapple (Scheduled Monuments, ref SM12937) are simpler rectangular/octagonal shapes. Very vulnerable to decay and deterioration in the intertidal zone. Can be seen in use in historic photographs on the site available at <http://garlieston.net/wwii/> and <http://www.mulberryharbour.info/>.




Updated description

Location

Easting	248347.00
Northing	538391.00
Projection	27700
Latitude	54.7175903
Longitude	-4.3559084



Submitted photographs

Image	Date	Caption	User
	15/04/2019	west side of beetle	SolwayCoastwise
	15/04/2019	East side of beetle	SolwayCoastwise
	15/04/2019	Aerial view of beetle	SolwayCoastwise
	15/04/2019	Front view of 'bow' end	SolwayCoastwise

Submitted updates

Update id	Date	User
3239	15/04/2019	SolwayCoastwise


[Add an update](#)

Add update

Site name	Cairnhead Mulberry Beetle
Site type	Pontoon
Description	<p>A boat-shaped 'Beetle', one of the reinforced concrete pontoons which supported the floating roadway of the Mulberry Harbour prototype which was tested at Cairnhead Bay prior to D-Day. Sitting at the low water mark on the rock platform and cobble beach, lying roughly N-S, measuring approx. 15m by 7m and standing c2.5m high. The iron and wood reinforcement straps around the 'hull' are visible and still attached in places though are deteriorating with occasional detached fragments on the surrounding beach. Currently intact other than a single small hole c0.5m in diameter in the top. Appears to be an unusual shape of pontoon; the other extant examples at Garlieston Bay and Port Whapple (Scheduled Monuments, ref SM12937) are simpler rectangular/octagonal shapes. Very vulnerable to decay and deterioration in the intertidal zone. Can be seen in use in historic photographs on the site available at http://garlieston.net/wwii/ and http://www.mulberryharbour.info/.</p>
Periods	Second World War

Location

Easting	248347.00
Northing	538391.00
Projection	27700
Latitude	54.7175903
Longitude	-4.3559084
Altitude	
Accuracy	



Type values

Condition

Description update	
Tide	
Located	
Proximity	
Erosion	<input type="checkbox"/> active sea erosion <input type="checkbox"/> active wind erosion (in dunes only) <input type="checkbox"/> has eroded in the past <input type="checkbox"/> not eroding <input type="checkbox"/> accreting
Other threats	
Access	<input type="checkbox"/> easily accessible - no restrictions <input type="checkbox"/> accessible - difficult terrain <input type="checkbox"/> accessible on foot (footpath) <input type="checkbox"/> vehicular access <input type="checkbox"/> not accessible, but visible from public path/road/adjacent land <input type="checkbox"/> accessible on foot (no footpath)

Local knowledge	<input type="checkbox"/> is well known <input type="checkbox"/> is well visited <input type="checkbox"/> has local associations/history <input type="checkbox"/> is not locally known <input type="checkbox"/> don't know
Recommendations	
Comments	

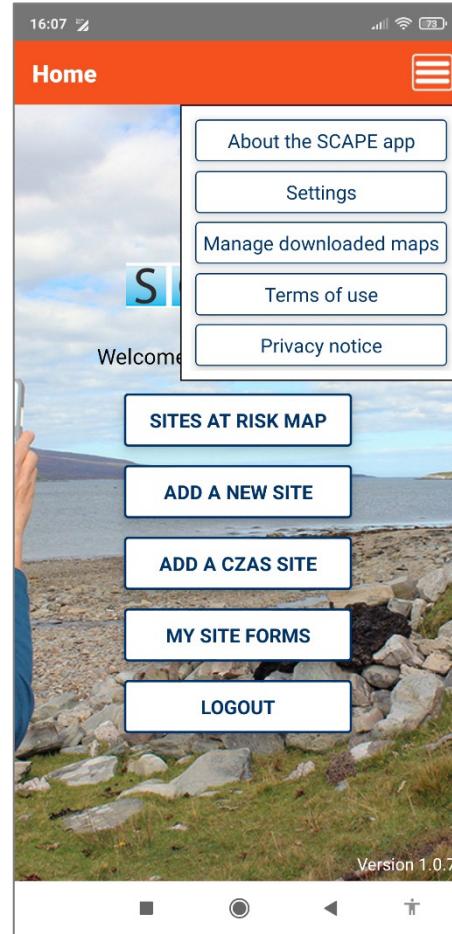
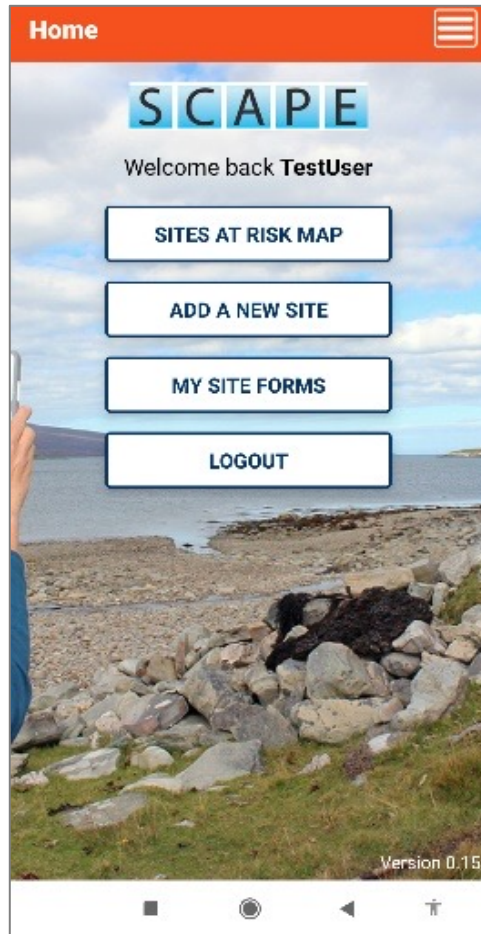
Images

Browse...	No file selected.
Add update	

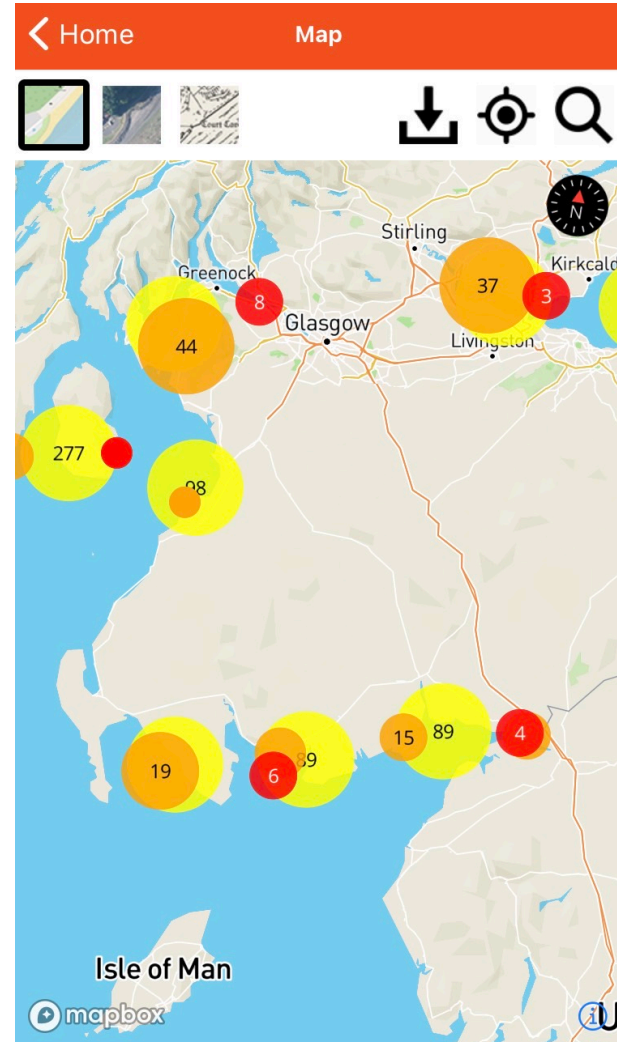
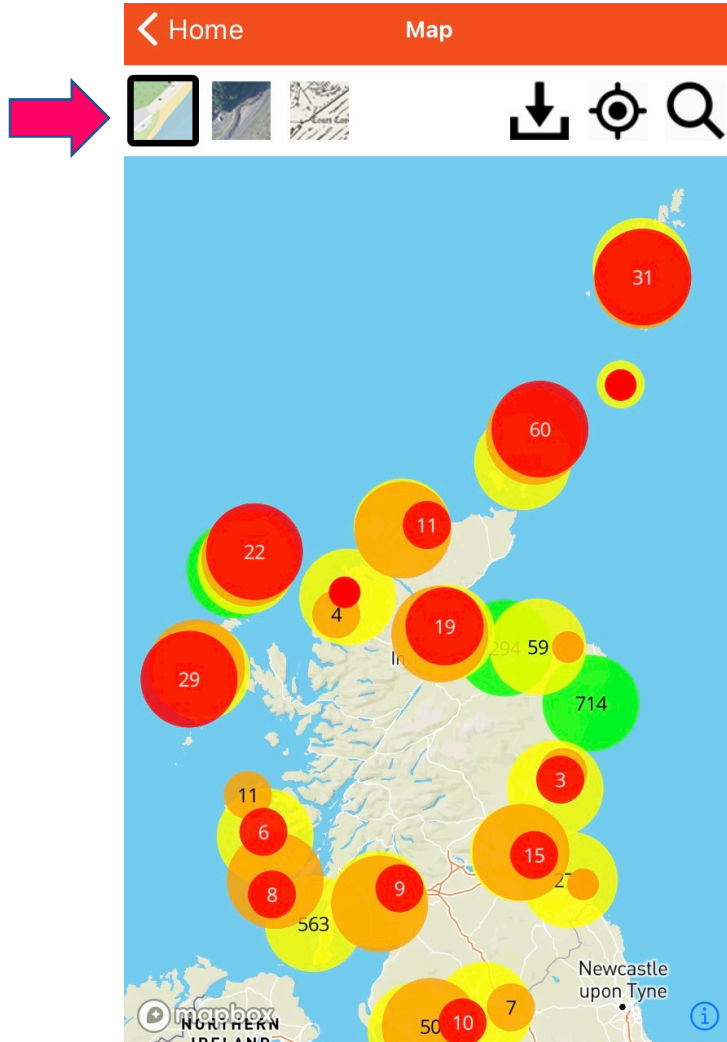


App

SCAPE Coastal Archaeology Recording app for Android and iOS



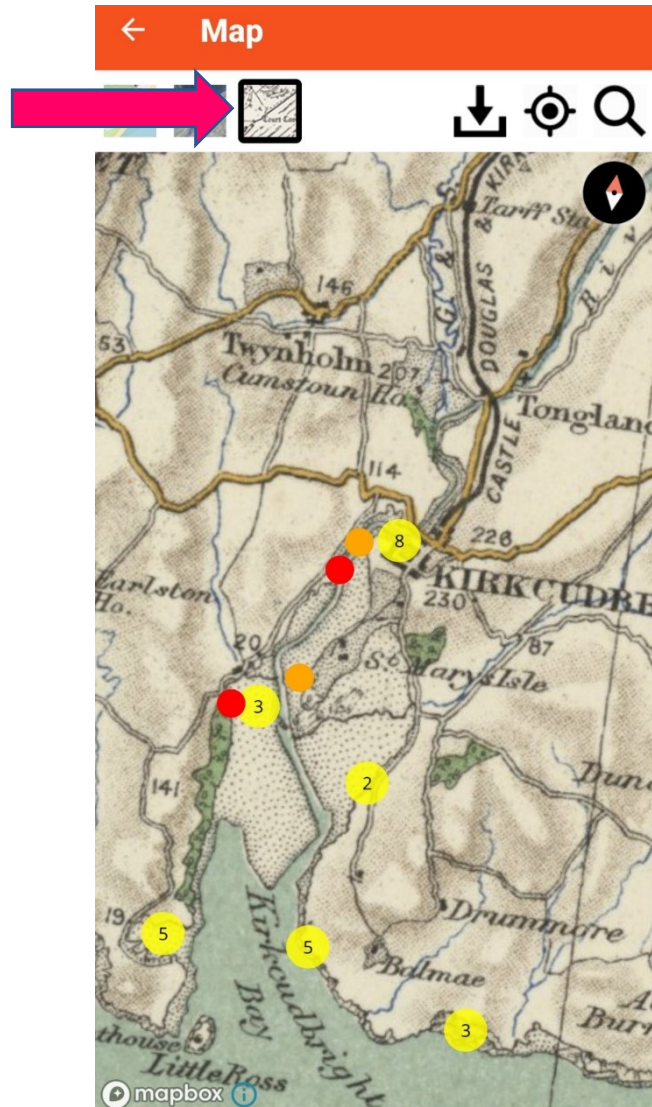
Sites at risk map



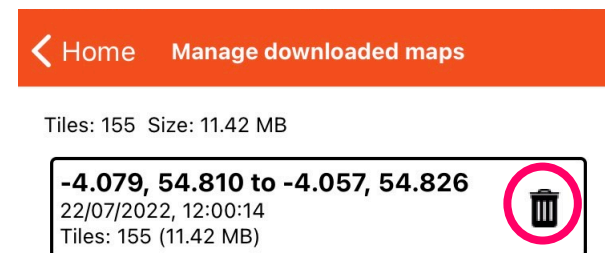
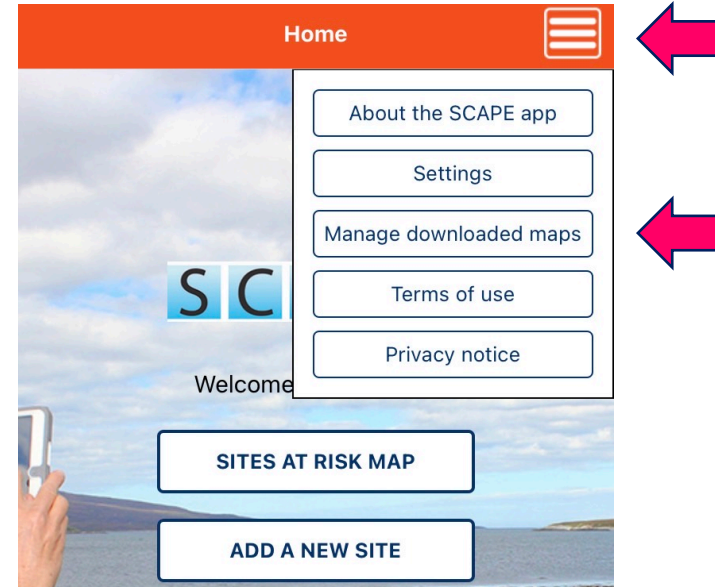
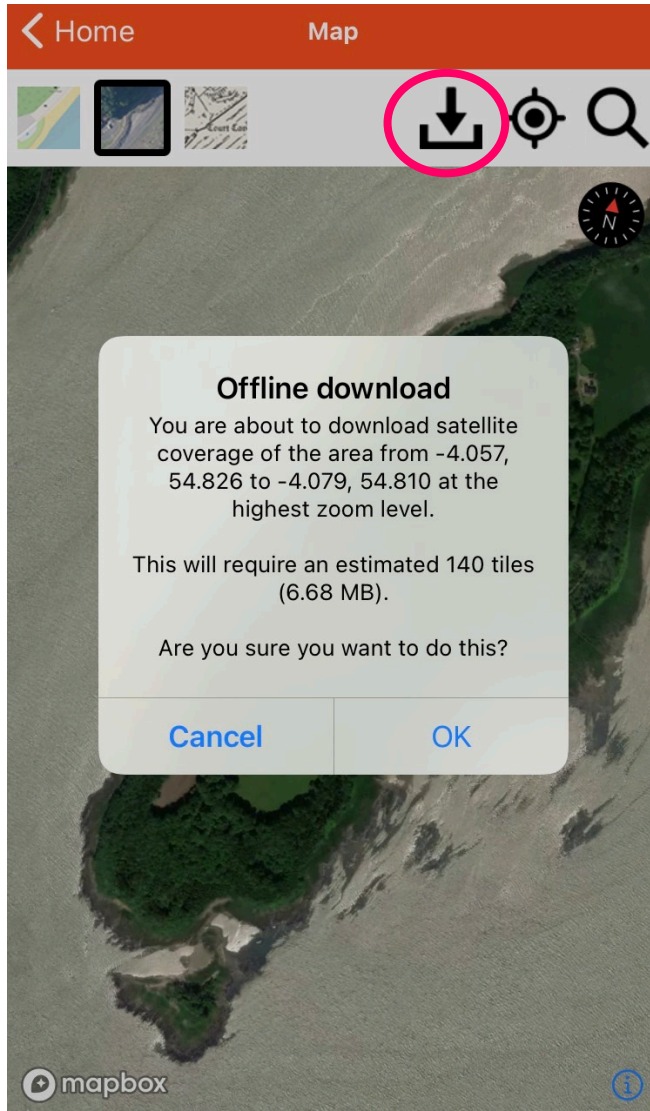
Sites at risk map



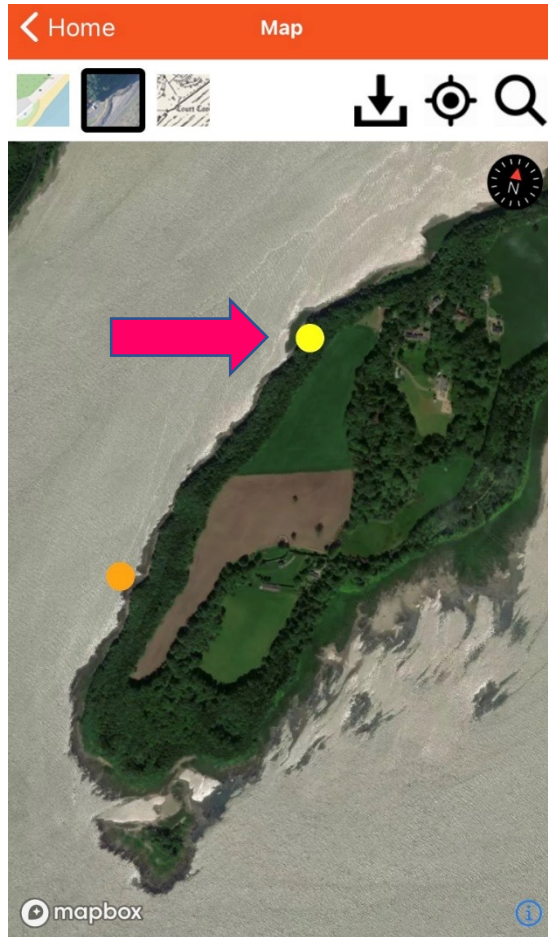
Sites at risk map



Downloading satellite imagery



Updating a site record



SLATE HARBOUR (3947)

Site type: Boat Noost

Period: Uncertain

Description Amorphous stone boat noost. Covered by woodland. Long sea wall is in bad condition. C.32m x 4m.

[Return to map](#) [Add an update](#)

Map

Add Update

Site name

SLATE HARBOUR (3947)

Site type

Boat Noost


Description

Amorphous stone boat noost. Covered by woodland.
Long sea wall is in bad condition. C.32m x 4m.

Periods

Uncertain

Update location if necessary

Get location

Easting

267200.00

Northing

549400.00

Latitude


54.8217926


Longitude

-4.0684848

Altitude


Accuracy


Save

Submit

Map

Add Update

Take picture

Select from file

Description update

State of the tide

☐ Low

☐ Mid

☐ High

Located

☐ No

☐ Yes


Proximity to shore


☐ Intertidal

☐ Coast edge

☐ less than 10m

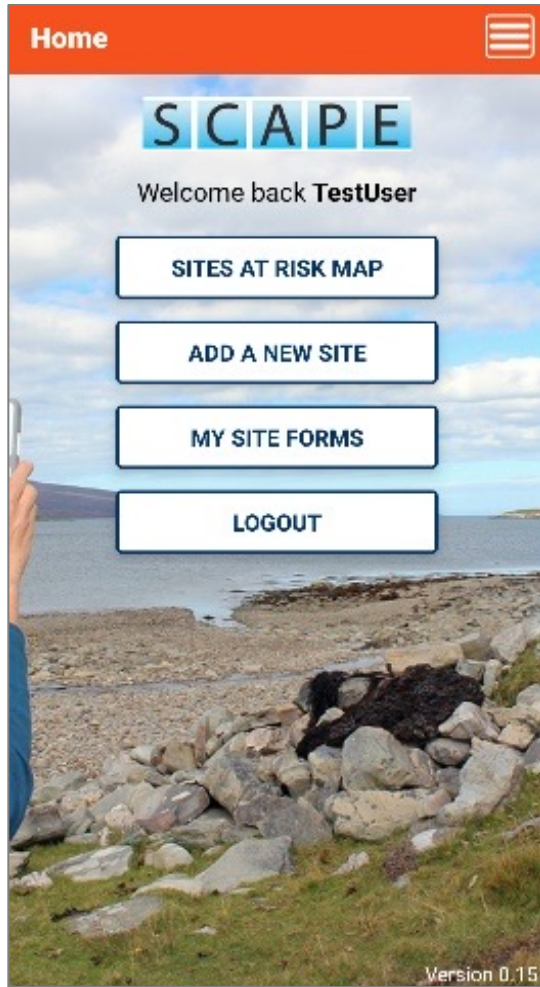
☐ 11-50m

Save

Submit



Creating a new site record



The screenshot shows the 'Add Site' form. The header is orange with a back arrow, 'Home', and 'Add Site'. The form contains the following fields: 'Site name' (text input), 'Site type' (text input), 'Periods' (text input), and 'Description' (text input). Below these is a blue button with a location pin icon and the text 'Get location'. Underneath are four pairs of text inputs: 'Easting' and 'Northing', 'Latitude' and 'Longitude', 'Altitude' and 'Accuracy'. At the bottom are two blue buttons: 'Save' (with a floppy disk icon) and 'Submit' (with an upload icon).

← Needed fields

← Needed field

← Needed field

Home

Add Site

Get location

Easting

Northing

Latitude

Longitude

Altitude

Accuracy

Take picture

Select from file

State of the tide

Low

Mid

High

Proximity to shore

Save

Submit

Home

Add Site

Proximity to shore

Intertidal

Coast edge

less than 10m

11-50m

greater than 50m

Erosion

active sea erosion

active wind erosion (in dunes only)

has eroded in the past

not eroding

accreting

Other threats

Access

easily accessible on foot

Save

Submit

Home

Add Site

Other threats

Access

easily accessible on foot

accessible on foot, remote and/or difficult terrain

vehicular access

not accessible, but visible from adjacent land, road, path etc

Local knowledge

Do you know if the site:

is well visited?

has local associations/history?

don't know

Recommendations

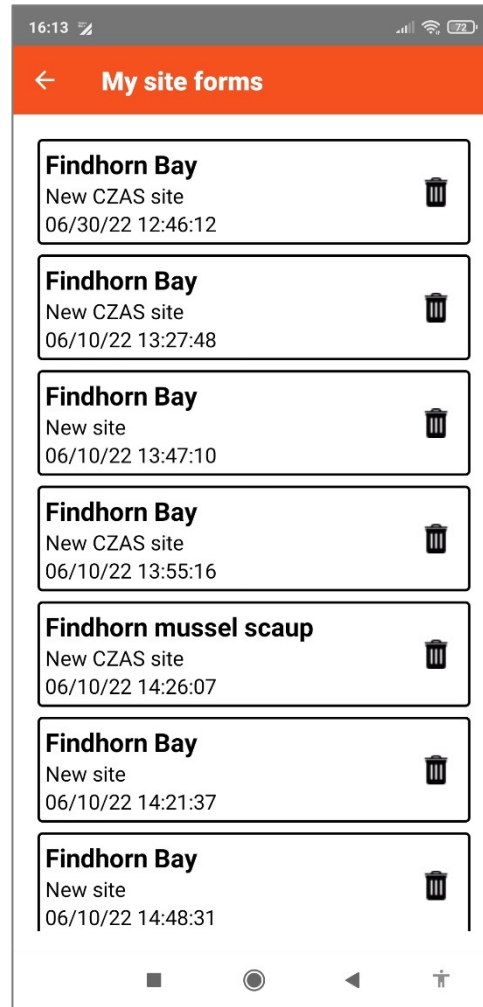
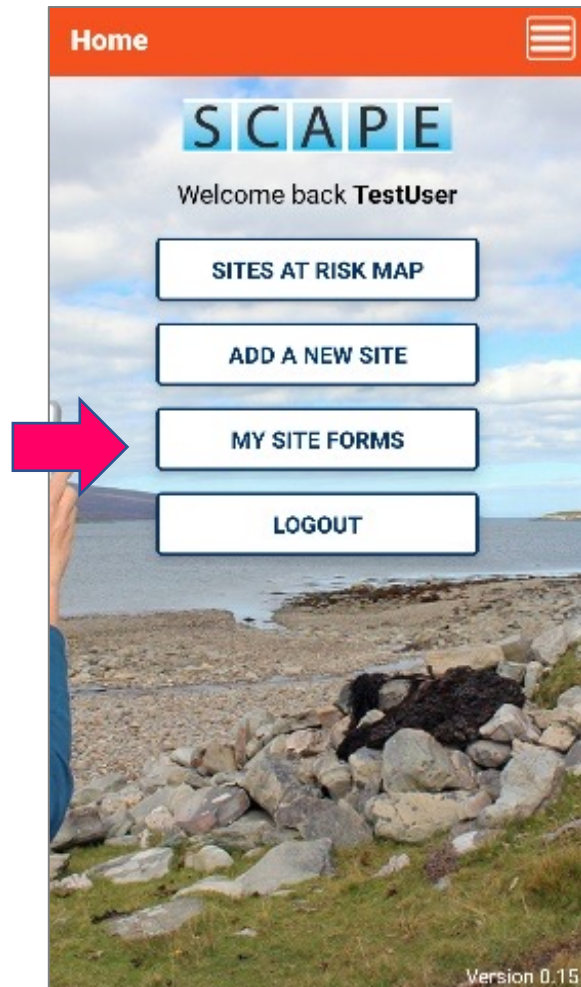
Comments

Save

Submit



Accessing your saved records



Joanna Hambly

jh105@st-andrews.ac.uk

Sarah Boyd

slb78@st-andrews.ac.uk



<https://scapetrust.org>

**How do we
respond to
accelerating
heritage loss?**



LEARNING FROM LOSS: TRANSFORMATION IN THE HISTORIC ENVIRONMENT IN THE FACE OF CLIMATE CHANGE

[<< Return to Programmes list](#)

Deterioration and loss of our historic environment due to intensification of natural erosive processes, exacerbated by climate change, outpaces available resources for preservation, and will accelerate over the coming century. Faced with unstoppable challenges, a 'do-nothing' approach is often regarded as the only option. However, the intersection of climate change impacts with irreplaceable heritage creates opportunities to explore fundamental questions about value, preservation, and the role of heritage in society. How should we assign significance to threatened assets? How should we identify priorities? Who should be involved in decision making? What is to be expected of communities, resource managers and researchers?

During an intensive fieldtrip and series of workshops, researchers, practitioners and community stakeholders will address these issues through the lens of threatened coastal heritage and vulnerable carved stone monuments, building upon the existing scholarship and expertise of team members. We will learn from each other and consider alternative futures using international and community experience.

The outcomes will assist in Historic Environment Scotland's decision making processes, feed into sector-wide change via Scotland's Archaeology Strategy and will be of wider societal relevance, giving insights into how we manage change and foster greater understanding of climate change impacts in Scotland by 2030.



Programme Outputs

[Project Video](#)

Programme Events

[Programme Itinerary](#)

Programme Materials

[Learning from Loss Briefing Summaries](#)

Documents prepared by the team to provide background information and context about the US and Scotland for the Learning from Loss programme.

[Learning from Loss Programme Itinerary and Participants](#)

A day by day itinerary of the Learning from Loss fieldtrip with links to further information and a list of all who participated.

[Learning from Loss Lunchtime Lectures](#)

Alistair Rennie, Dynamic Coast project manager, Sarah Miller, Florida Public Archaeology Network, Marcy Rockman, US

How to respond?

Some insights

How to respond?

Some insights

- Prioritise in partnership

How to respond?

Some insights

- Prioritise in partnership
- Economic value is important

How to respond?

Some insights

- Prioritise in partnership
- (Potential) economic value is important
- Mindful loss not careless loss