

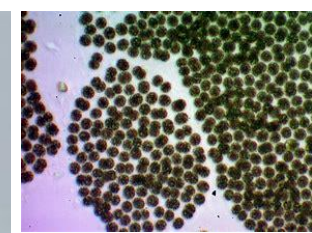
# Bloomin' Algae !

- **citizen science innovation to a key freshwater issue**
- **helping to report cyanobacterial blooms**
- **helping to deliver surveillance and rapid action**
- **helping SEPA**

Laurence Carvalho (now NIVA), Anne Dobel, Gemma Nash, Phil Taylor, Eleanor Mackay, Linda May (UKCEH)

Jan Krokowski, Kate Arnold, Elisabeth Mullen, Seren Craig (SEPA)

Sigrid Haande (NIVA), Camilla H.C. Hagman (NIVA), Bryan Kennedy (Irish EPA), Miquel Lurling (Wageningen University), Jeroen Van Wichelen (INBO)

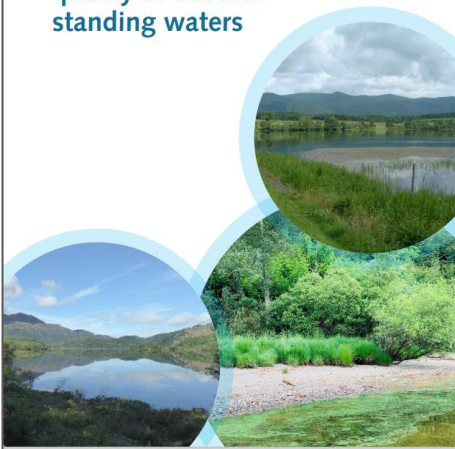




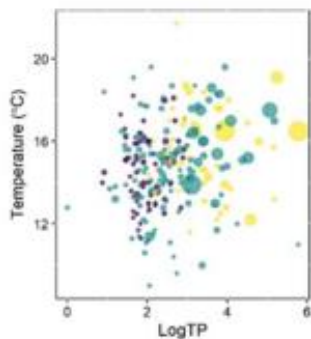
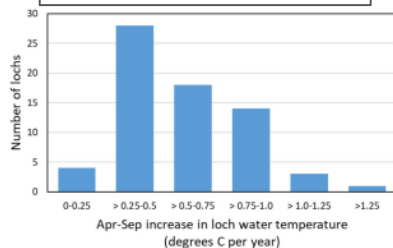
## URGENCY

**CREW** CENTRE OF  
EXPERTISE  
FOR WATERS

## Assessing climate change impacts on the water quality of Scottish standing waters



Linda May, Philip Taylor, Iain D. M. Gunn, Stephen J. Thackeray, Laurence R. Carvalho, Mairead Corr, Anne J. Dobel, Alanna Grant, Gemma Nash, Emma Robinson and Bryan M. Spears



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## Warning issued to pet owners after toxic blue-green algae found in loch

Lochs at Loch Watten have indicated the presence of blue-green algae, which can be fatal to pets and livestock.

**John O'Groat Journal**  
and  
**Caithness Courier**

Home News Opinion Politics Sport Lifestyle What's on Business End-to-end Highland Business

Home News Article

## Beware of toxic scum – people and pets should avoid blue-green algae in Wick River

By David G Scott - david.scott@hmedia.co.uk

Published: 17:33, 28 July 2023 | Updated: 17:35, 28 July 2023

Search Results

The Shetland Journal

## Public health warning after blue-green algae found in Highland loch

Envirop

28 Jul 2023

13 min

A loch used by fishermen, dog

The Irish News

## Officials: Toxic bacteria in Lough Neagh is worst ever recorded

Story by John Breslin • 15h



A mallard duck swims through the budge of green algae at Glengwa Marina in Lough Neagh.

© The Irish News Images



Blue-green algae is harmful to humans and animals.

said. "During this current period of prolonged warm weather, the chance of blue-green algae (cyanobacteria) affecting water courses, particularly ponds, lochs and canals as well as rivers, increases significantly.

"Sometimes the algae can form blooms, which can release toxins into the water.

"Contact with this can have health effects for humans and animals.

"The situation is being investigated by the Highland Council's environmental health team, in partnership with NHS Highland public health and colleagues."

He warned: "As a precautionary measure, contact with the algal

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ncil now advises caution after

s confirmed by SEPA (Scottish

riverside in Wick.

**The Oban Times**  
INCORPORATING LOCHABER TIMES

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## Dog owner's plea after pet dies



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## WATER WARNING Vet warning after dog dies and other poisoned by blue-green algae in Scots water

Katy Pagan

Published: 11:52, 21 Jul 2021 | Updated: 11:54, 21 Jul 2021



A VET has issued an urgent warning to Scottish pet owners after a dog was exposed to a deadly toxin in a loch and passed away.



Development of citizen science app  
Report presence of potential harmful algal blooms – Cyanobacteria  
Rapid verification – speed up health warnings  
Rapid notification to agencies – speed up risk management

Record of bloom - photo, location and date  
Additional information – swimming, dog walking, fishing etc.

Data available to everyone in app – zoom in to sites  
Photo of bloom

Data available via website <https://bloominalgae.ceh.ac.uk>  
More comprehensive data on coverage and frequency

## Verified records:



Hillend Loch, 18 July



Loch Leven, 7 April

## Rejected records:



Harperrig Reservoir, 20 July

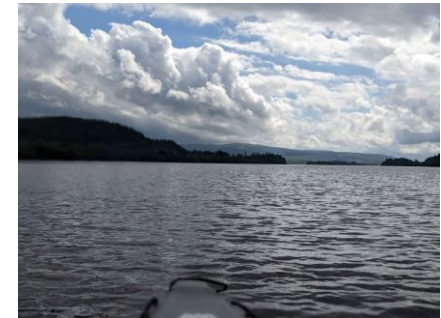
## Plausible records:



North Third Reservoir, 14 April

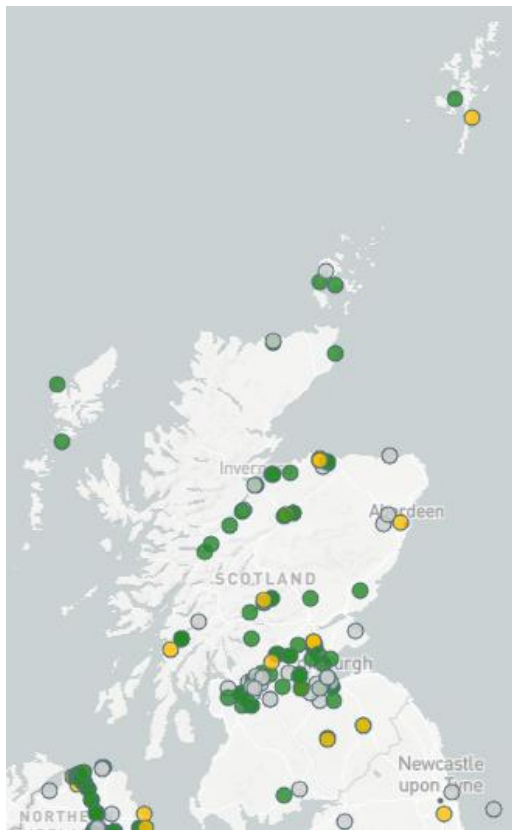


Cooper's Park pond, 11 July



Loch Awe, 24 June





## Rapid notification to agencies

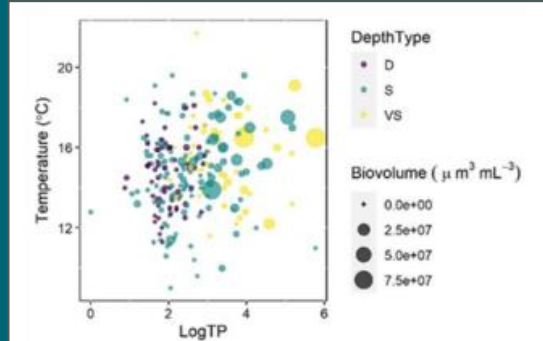
- SEPA
  - Local Authorities, Environmental Health
  - Scottish Water .....
- 
- Citizen science approach to identify and manage key freshwater issue
  - Reduce public and animal health risks
  - Provide information and awareness
  - Motivation to tackle water quality
  - Reassurance if cyanobacteria, or not
  - Increase scientific collaboration
- 
- **Scottish Cyanobacteria Guidance**

# Thank you

## Contact details

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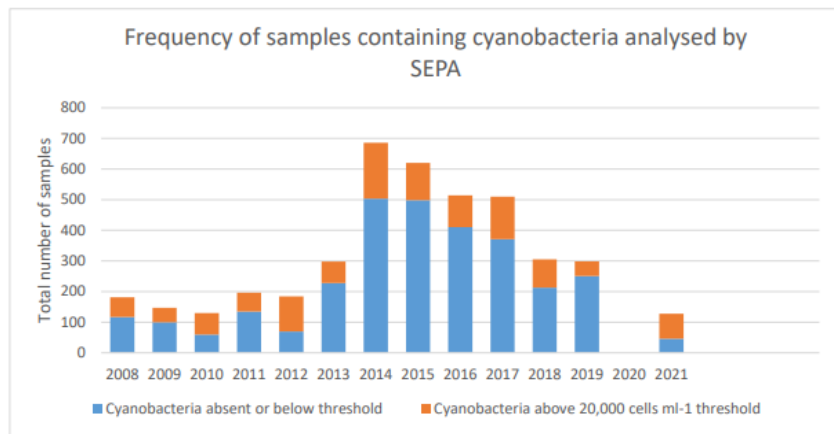


Strathclyde Loch, September 2021.



Loch Lomond, December 2022.

## SEPA ECOLOGY ASSESSMENT UNIT ACTION



## Bloomin Algae, 2021- 25 Sept 2023



## SEPA lab analysis adhoc algae/cyanobacteria

