

Algal Blooms Sweden - 2021

SND-ID: 2022-197-1.

Citation

Ana Tronholm, Magnus Lindeberg, & Jurie Germishuys. (2022). Algal Blooms Sweden - 2021 [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.7234133>

Creator/Principal investigator(s)

[Ana Tronholm](#) - University of Gothenburg, Biological and Environmental Sciences

Magnus Lindeberg - Maranics AB

Jurie Germishuys - Combine Control Systems AB

Research principal

[University of Gothenburg](#) - Biological and Environmental Sciences

Principal's reference number

Formas 2020-00714

Description

Dataset containing images of algal blooms in the Baltic Sea. The data is provided with a metadata description containing time spotted, comments, municipality, county and coordinates of each image. The images and metadata file are archived in a zip package. Images show various summer surface accumulations of so-called harmful algal blooms (HABs) or nuisance blooms. Typically, these blooms consists of species of cyanobacteria of the order of Nostocales, including toxic *Nodularia* and *Aphanizomenon*. These blooms were verified by Informationscentralen (Länsstyrelsen Stockholm and Länsstyrelsen Västerbotten). However, the blooms seen in the images have not been taxonomically annotated by microscopy nor genetic analysis.

The following data fields are contained in the metadata files (provided in both json and csv format):

report_id: unique identifier for reporting record, type: string
time_spotted: date that bloom was spotted, type: datetime
algae_overview_photo: url to overview photo submitted, type: string
algae_detail_photo: url to detailed photo submitted, type: string
comments: Any additional information relating to the bloom, type: string
lat: Latitude of position where bloom was seen, type: float
long: Longitude of position where bloom was seen, type: float
place: County where bloom was spotted, type: string
kommun: Municipality where bloom was spotted, type: string

Total observations: 251

Notes: Not every observation has an accompanying image and others were verified using other information provided.

One of the submitted photographs for 2021 contained unintentionally collected personal data. It has been excluded from this dataset to make open data publishing possible.

Data contains personal data

No

Language

[English](#)

[Swedish](#)

Time period(s) investigated

2021-06-19 - 2021-10-09

Variables

251

Data format / data structure

[Numeric](#)

[Text](#)

[Still image](#)

[Geospatial](#)

Species and taxons

[Nostocales](#)

Data collection 1

- Mode of collection: Compilation/Synthesis
- Description of the mode of collection: Compilation of digital photographs submitted by participants of a citizen science project, along with metadata.
- Time period(s) for data collection: 2021-06-19 - 2021-10-09
- Instrument: Digital camera (Technical instrument(s))

Geographic spread

Geographic description: Swedish Baltic Sea coast

Responsible department/unit

Biological and Environmental Sciences

Funding

- Funding agency: Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS)
- Funding agency's reference number: 2020-00714
- Project name on the application: Åtgärder mot farliga algblomningar: Utveckling av en innovativ och integrerande metod för att förutsäga giftiga cyanobakterier i en föränderlig miljö
- Funding information: Tackling Harmful Algal Blooms: Development of an innovative and integrative method for forecasting toxic cyanobacteria in a changing environment

Research area

[Ecology](#) (Standard för svensk indelning av forskningsämnen 2011)

[Biota](#) (INSPIRE topic categories)

[Oceans](#) (INSPIRE topic categories)

[Environment](#) (INSPIRE topic categories)

Keywords

[Harmful algal bloom](#), [Algal bloom](#), [Citizen science](#), [Prokaryote](#), [Cyanobacteria](#), [Species distribution](#), [Baltic sea](#)

Point (Lon/Lat)

17.783416, 58.910319

Point (Lon/Lat)

17.783416, 58.910319

Point (Lon/Lat)

17.894897, 58.81066

Point (Lon/Lat)

18.318538, 59.375059

Point (Lon/Lat)

18.544521, 59.513278

Point (Lon/Lat)

18.056202, 59.372916

Point (Lon/Lat)

18.120571, 57.496595

Point (Lon/Lat)

17.996526, 59.006489

Point (Lon/Lat)

18.120571, 57.496595

Point (Lon/Lat)

20.323303, 59.972284

Point (Lon/Lat)

18.578627, 59.448718

Point (Lon/Lat)

17.602138, 58.849159

Point (Lon/Lat)

18.349056, 59.020886

Point (Lon/Lat)

16.869915, 58.330272

Point (Lon/Lat)

18.544381, 59.212301

Point (Lon/Lat)

18.566437, 58.963198

Point (Lon/Lat)

18.189045, 58.919109

Point (Lon/Lat)

17.723998, 59.005365

Point (Lon/Lat)

18.079249, 58.973594

Point (Lon/Lat)

18.568619, 58.963283

Point (Lon/Lat)

18.185496, 58.915721

Point (Lon/Lat)

18.282233, 59.082935

Point (Lon/Lat)

18.738719, 59.643024

Point (Lon/Lat)

18.249411, 58.938836

Point (Lon/Lat)

17.584395, 58.931018

Point (Lon/Lat)

18.480349, 59.097302

Point (Lon/Lat)

18.996084, 59.392019

Point (Lon/Lat)

18.886007, 59.42815

Point (Lon/Lat)

18.305907, 59.121041

Point (Lon/Lat)

18.966847, 59.744291

Point (Lon/Lat)

18.966847, 59.744291

Point (Lon/Lat)

19.078901, 59.750977

Point (Lon/Lat)

14.357906, 55.82035

Point (Lon/Lat)

18.122095, 57.495698

Point (Lon/Lat)

18.737759, 59.640682

Point (Lon/Lat)

15.563534, 56.165626

Point (Lon/Lat)

13.20856, 55.361844

Point (Lon/Lat)

17.920331, 58.795075

Point (Lon/Lat)

17.95366, 58.108016

Point (Lon/Lat)

16.913805, 58.314832

Point (Lon/Lat)

19.190004, 59.4304

Point (Lon/Lat)

12.998619, 55.391734

Point (Lon/Lat)

19.190004, 59.4304

Point (Lon/Lat)

13.784945, 55.424266

Point (Lon/Lat)

13.20856, 55.361844

Point (Lon/Lat)

15.057658, 56.15031

Point (Lon/Lat)

15.563534, 56.165626

Point (Lon/Lat)

18.120142, 57.49638

Point (Lon/Lat)

18.643501, 60.128161

Point (Lon/Lat)

18.831622, 59.53103

Point (Lon/Lat)

19.062612, 59.569288

Point (Lon/Lat)

19.062612, 59.569288

Point (Lon/Lat)

16.586973, 57.694599

Point (Lon/Lat)

14.817125, 56.005989

Point (Lon/Lat)

18.385781, 59.011729

Point (Lon/Lat)

15.591349, 56.18638

Point (Lon/Lat)

17.24046, 56.63862

Point (Lon/Lat)

14.96637, 56.116221

Point (Lon/Lat)

18.385781, 59.011729

Point (Lon/Lat)

17.115611, 58.673858

Point (Lon/Lat)

18.73409, 59.263137

Point (Lon/Lat)

17.840784, 58.899093

Point (Lon/Lat)

18.119949, 57.497312

Point (Lon/Lat)

18.798636, 59.150137

Point (Lon/Lat)

16.971352, 58.543903

Point (Lon/Lat)

18.960664, 59.657459

Point (Lon/Lat)

17.814902, 58.898151

Point (Lon/Lat)

17.814902, 58.898151

Point (Lon/Lat)

15.4, 56.1

Point (Lon/Lat)

16.567772, 57.724526

Point (Lon/Lat)

12.462658, 56.304681

Point (Lon/Lat)

12.462658, 55.359746

Point (Lon/Lat)

18.816705, 59.291312

Point (Lon/Lat)

13.507241, 55.386456

Point (Lon/Lat)

12.809605, 55.403571

Point (Lon/Lat)

18.744873, 59.478089

Point (Lon/Lat)

16.742482, 58.409131

Point (Lon/Lat)

19.076245, 59.747804

Point (Lon/Lat)

18.808812, 59.688916

Point (Lon/Lat)

17.711314, 58.988837

Point (Lon/Lat)

16.742482, 58.409131

Point (Lon/Lat)

14.963834, 56.129791

Point (Lon/Lat)

18.744873, 59.478089

Point (Lon/Lat)

18.892539, 59.626971

Point (Lon/Lat)

17.723652, 59.014954

Point (Lon/Lat)

12.701178, 56.014409

Point (Lon/Lat)

17.692071, 59.040061

Point (Lon/Lat)

16.712802, 57.783801

Point (Lon/Lat)

17.073777, 57.291554

Point (Lon/Lat)

17.054911, 57.261007

Point (Lon/Lat)

12.701178, 56.014409

Point (Lon/Lat)

16.535797, 58.638365

Point (Lon/Lat)

17.073777, 57.291554

Point (Lon/Lat)

16.535797, 58.638365

Point (Lon/Lat)

14.197132, 55.725797

Point (Lon/Lat)

14.278774, 55.635255

Point (Lon/Lat)

14.249525, 55.874733

Point (Lon/Lat)

17.056821, 57.257067

Point (Lon/Lat)

17.664871, 59.056446

Point (Lon/Lat)

16.712802, 57.783801

Point (Lon/Lat)

19.148548, 59.812386

Point (Lon/Lat)

14.315433, 55.593893

Point (Lon/Lat)

18.448719, 59.142918

Point (Lon/Lat)

14.278774, 55.635255

Point (Lon/Lat)

14.897666, 56.159832

Point (Lon/Lat)

14.897666, 56.159832

Point (Lon/Lat)

14.209162, 55.802825

Point (Lon/Lat)

16.742014, 57.538647

Point (Lon/Lat)

17.055141, 57.258156

Point (Lon/Lat)

16.628565, 57.882623

Point (Lon/Lat)

17.64075, 58.846283

Point (Lon/Lat)

19.105639, 59.854519

Point (Lon/Lat)

17.648296, 58.817257

Point (Lon/Lat)

17.072015, 57.257501

Point (Lon/Lat)

18.816619, 59.290217

Point (Lon/Lat)

18.67306, 59.456838

Point (Lon/Lat)

16.808664, 56.909976

Point (Lon/Lat)

17.243221, 58.710956

Point (Lon/Lat)

16.092739, 56.377514

Point (Lon/Lat)

16.735812, 56.704506

Point (Lon/Lat)

17.805939, 58.879119

Point (Lon/Lat)

16.740761, 57.621554

Point (Lon/Lat)

16.491064, 57.257817

Point (Lon/Lat)

16.723493, 57.622978

Point (Lon/Lat)

17.586338, 58.950539

Point (Lon/Lat)

16.699415, 57.602715

Point (Lon/Lat)

18.676586, 59.458642

Point (Lon/Lat)

16.440182, 56.969685

Point (Lon/Lat)

19.082082, 59.78224

Point (Lon/Lat)

17.64075, 58.846283

Point (Lon/Lat)

16.699415, 57.602715

Point (Lon/Lat)

14.599049, 56.020981

Point (Lon/Lat)

18.759194, 59.676978

Point (Lon/Lat)

18.525505, 59.215639

Point (Lon/Lat)

18.199663, 58.910238

Point (Lon/Lat)

16.903071, 58.515322

Point (Lon/Lat)

18.848547, 59.197666

Point (Lon/Lat)

18.761129, 59.481533

Point (Lon/Lat)

17.12554, 58.661228

Point (Lon/Lat)

18.79873, 59.537059

Point (Lon/Lat)

16.628565, 57.882623

Point (Lon/Lat)

16.761525, 58.430976

Point (Lon/Lat)

16.899548, 58.360944

Point (Lon/Lat)

16.440182, 56.969685

Point (Lon/Lat)

18.428521, 59.138246

Point (Lon/Lat)

16.491064, 57.257817

Point (Lon/Lat)

18.760927, 57.614997

Point (Lon/Lat)

18.667123, 59.130854

Point (Lon/Lat)

18.080316, 58.972527

Point (Lon/Lat)

16.728272, 57.712493

Point (Lon/Lat)

19.214715, 59.446109

Point (Lon/Lat)

19.057996, 59.568833

Point (Lon/Lat)

16.092739, 56.377514

Point (Lon/Lat)

18.265484, 59.269194

Point (Lon/Lat)

17.704996, 59.060759

Point (Lon/Lat)

16.393039, 58.655967

Point (Lon/Lat)

13.634491, 55.416056

Point (Lon/Lat)

18.676586, 59.458642

Point (Lon/Lat)

17.066676, 57.282844

Point (Lon/Lat)

16.735812, 56.704506

Point (Lon/Lat)

16.475762, 57.278676

Point (Lon/Lat)

16.723493, 57.622978

Point (Lon/Lat)

18.080316, 58.972527

Point (Lon/Lat)

16.6751, 57.138009

Point (Lon/Lat)

14.338788, 55.568882

Point (Lon/Lat)

17.586338, 58.950539

Point (Lon/Lat)

14.599049, 56.020981

Point (Lon/Lat)

17.086159, 57.265197

Point (Lon/Lat)

18.79764, 59.537238

Point (Lon/Lat)

14.953298, 56.153676

Point (Lon/Lat)

17.093666, 58.693819

Point (Lon/Lat)

14.629011, 56.006033

Point (Lon/Lat)

18.897572, 59.712411

Point (Lon/Lat)

14.629011, 56.006033

Point (Lon/Lat)

14.752993, 56.148065

Point (Lon/Lat)

16.737255, 56.704438

Point (Lon/Lat)

14.953298, 56.153676

Point (Lon/Lat)

16.793198, 58.181553

Point (Lon/Lat)

15.562976, 56.176839

Point (Lon/Lat)

18.783295, 59.674892

Point (Lon/Lat)

18.7982, 59.538074

Point (Lon/Lat)

16.616921, 57.648937

Point (Lon/Lat)

17.80416, 58.876663

Point (Lon/Lat)

16.561935, 56.98918

Point (Lon/Lat)

16.561935, 56.98918

Point (Lon/Lat)

16.586963, 57.694609

Point (Lon/Lat)

18.627813, 59.485194

Point (Lon/Lat)

19.105989, 59.622105

Point (Lon/Lat)

18.783295, 59.674892

Point (Lon/Lat)

18.627813, 59.485194

Point (Lon/Lat)

13.470506, 55.375182

Point (Lon/Lat)

13.908775, 55.434875

Point (Lon/Lat)

17.065173, 57.282794

Point (Lon/Lat)

17.063762, 57.266871

Point (Lon/Lat)

18.714287, 57.333378

Point (Lon/Lat)

18.69448, 59.567245

Point (Lon/Lat)

18.798485, 59.536698

Point (Lon/Lat)

18.378286, 59.073623

Point (Lon/Lat)

18.378286, 59.073623

Point (Lon/Lat)

18.008006, 59.039449

Point (Lon/Lat)

14.337686, 55.572902

Point (Lon/Lat)

16.354574, 56.719089

Point (Lon/Lat)

17.628937, 59.04597

Point (Lon/Lat)

17.665772, 59.057103

Point (Lon/Lat)

16.956367, 58.492528

Point (Lon/Lat)

14.337124, 55.574696

Point (Lon/Lat)

18.514578, 59.119539

Point (Lon/Lat)

18.514578, 59.119539

Point (Lon/Lat)

18.662927, 59.456243

Point (Lon/Lat)

16.576709, 57.371661

Point (Lon/Lat)

18.555985, 59.420999

Point (Lon/Lat)

18.996592, 59.376877

Point (Lon/Lat)

16.805294, 58.169548

Point (Lon/Lat)

16.576709, 57.371661

Point (Lon/Lat)

18.996592, 59.376877

Point (Lon/Lat)

18.797302, 59.535251

Point (Lon/Lat)

16.46039, 57.179331

Point (Lon/Lat)

18.3538, 59.2535

Point (Lon/Lat)

16.46039, 57.179331

Point (Lon/Lat)

17.442618, 58.73954

Point (Lon/Lat)

18.711187, 59.202072

Point (Lon/Lat)

15.563564, 56.165244

Point (Lon/Lat)

19.339052, 59.439695

Point (Lon/Lat)

16.587004, 57.694513

Point (Lon/Lat)

18.711187, 59.202072

Point (Lon/Lat)

16.587004, 57.694513

Point (Lon/Lat)

15.563564, 56.165244

Point (Lon/Lat)

18.4093, 59.124735

Point (Lon/Lat)

16.487044, 57.908784

Point (Lon/Lat)

16.487044, 57.908784

Point (Lon/Lat)

16.943839, 58.488553

Point (Lon/Lat)

18.797677, 59.537225

Point (Lon/Lat)

18.796086, 59.536873

Point (Lon/Lat)

18.798097, 59.538187

Point (Lon/Lat)

18.797287, 59.536786

Point (Lon/Lat)

18.547276, 59.042643

Point (Lon/Lat)

18.796772, 59.537309

Point (Lon/Lat)

17.836492, 58.899564

Point (Lon/Lat)

18.317428, 59.252493

Point (Lon/Lat)

17.741188, 58.920225

Point (Lon/Lat)

18.521233, 59.151819

Point (Lon/Lat)

16.397894, 56.565122

Point (Lon/Lat)

16.397894, 56.565122

Point (Lon/Lat)

18.479732, 59.122923

Point (Lon/Lat)

18.798275, 59.537319

Point (Lon/Lat)

18.406262, 59.261669

Point (Lon/Lat)

18.419137, 59.385857

Point (Lon/Lat)

18.774495, 59.182869

Point (Lon/Lat)

17.734915, 58.915005

Point (Lon/Lat)

18.422222, 59.372092

Point (Lon/Lat)

16.957756, 57.269232

Accessibility level

Access to data through an external actor

Data are freely accessible

License

[CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)

Homepage

[Algal Blooms Sweden, GU project page](#)

[Algal Blooms Sweden on Facebook](#)

This resource has the following relations

Is part of [Ocean Data Factory Sweden](#)

Related research data in SND's catalogue

[Algal Blooms Sweden - 2022](#)

Download metadata

[DataCite](#)

[DDI 2.5](#)

[DDI 3.3](#)

[DCAT-AP-SE 2.0](#)

[JSON-LD](#)

[PDF](#)

[Citation \(CLS\)](#)