

Feature Activity Sensitivity Tool (FeAST): help guide

The Feature Activity Sensitivity Tool (FeAST) allows users to investigate the sensitivity of marine features in Scotland's seas, to pressures arising from human activities. This tool was re-developed in 2023 and this help guide is designed to help new and existing users navigate the new tool.

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Key features

Home page

This is the landing page for the tool, it includes:

- A short introduction to the tool.
- Links to the search by activities, features, and pressures functions.
- A list of the latest updates to the data.

<https://feature-activity-sensitivity-tool.scot/>

Search by:

There are three options for users to search and filter the FeAST data. Each one has a different starting point designed to meet the needs of our varied users.

Activity

Here users can explore data on a particular activity, the pressures that may be associated with the activity and feature sensitivities and exposure to those pressures. The evidence underpinning these relationships and associated references are provided. For information on how to “Search by Activity”, see the how-to section below.

<https://feature-activity-sensitivity-tool.scot/search-activity>

Feature

Here users can explore data on the sensitivity of different Scottish marine features to various pressures and see which activities these are associated with. The evidence underpinning these relationships and associated references are also provided. For information on how to “Search by Feature”, see the how-to section below.

<https://feature-activity-sensitivity-tool.scot/search-feature>

Pressure

Here users can select marine pressures and explore either the activities that they are associated with, or the sensitivities of features to them. The evidence underpinning these relationships and associated references are also provided. For information on how to “Search by Pressure”, see the how-to section below.

<https://feature-activity-sensitivity-tool.scot/search-pressure>

Glossary

Here you can get further information about the terms used within the system and descriptions.

<https://feature-activity-sensitivity-tool.scot/glossary>

Help page

Here you can get guidance on how to use the system, see frequently asked questions, explore our methods, and contact us.

<https://feature-activity-sensitivity-tool.scot/help>

Log in / My account

You are now able to use an e-mail address to create an account. Having an account allows you to save searches to return to later. If you are not logged in, you will be redirected to the log-in page.

<https://feature-activity-sensitivity-tool.scot/my-account>

Search bar

The search bar allows you to search the site for terms of interest. Search results will take you to the appropriate search by tool if you are searching for a particular feature, activity, or pressure.

How to: Search by Feature

- 1) Start by selecting one or more Feature Categories from the list. An overview of these can be found in the glossary. All categories will be selected by default.
 - a. If you are interested in all categories or are not sure which to choose, you can proceed to clicking the “Next: Features” button at the bottom of the page.
 - b. If you are only interested in certain categories then click on the tick box next to “Select All”, this will de-select everything. You can then select your categories of interest by clicking in the box to the left of the category name. Once you have selected all your categories of interest click the “Next: Features” button at the bottom of the page.
- 2) You will then be shown a list of all features within your selected feature category. Again, the default choice is all selected, but you can select as many or as few as you wish.

< Select Features

Category **Habitats** Reset

- Select All**

- Burrowed mud** ^
Soft muddy sediments peppered with the burrows of burrowing animals such as the Dublin Bay prawn and populated with other animals such as sea pens and anemones

- Carbonate mound communities** ^
Large geological domed features formed from calcium carbonate that often host fragile species such as corals and sponges

- 3) Once you have selected your features of interest click the “Next: Pressures” button at the bottom of the page.
- 4) You should now see a list of pressures to choose from. You can see more information about each pressure by clicking on the feature name or the small down arrow to the right of the pressure name, which will expand an information box.

< Select Pressures

Category **Habitats**

Features **Burrowed mud**

Reset

Select All

Barrier to mobile species movement

Description

Cetaceans, basking shark and black guillemot only - The physical obstruction of species movements including local movements (within & between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, eels, salmon, whales). Includes up river movements (where tidal barrages & devices or dams could obstruct movements) or movements across open waters (offshore wind farm, wave or tidal device arrays, mariculture infrastructure or fixed fishing gears). It is acknowledged that aquaculture and fixed fishing gears represent very low scale barriers. Note: entanglement is included under Removal of non-target species pressure.

- 5) All the pressures will be selected by default, but you can amend this to select only the pressures you are interested in and then click the "Next: Results" button at the bottom of the page.
- 6) You should now see a results page. At the top of this page, you can see all the filters you have previously selected.

< Results





Category **Habitats**

Features **Burrowed mud**

Pressures **Barrier to mobile species movement**

Reset

- 7) If you wish to amend these, you can navigate back to the filter of interest by clicking on the relevant select step directly above the results title. If you wish to totally restart your search and select new option, click the "Reset" button.

 **Select Category** >  **Select Feature** >  **Select Pressure** >  **4 Results**

- 8) Depending on the filters applied the results page will show one or more entries. You can see an example result below.

✓ Burrowed mud - Barrier to mobile species movement

Sensitivity **Not Assessed** Confidence **Not Assessed** Tolerance **Not Assessed** Recovery **Not Assessed**

Evidence Base **f** ^

Mobile species only

Pressure Description **g** ^

Cetaceans, basking shark and black guillemot only - The physical obstruction of species movements including local movements (within & between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, eels, salmon, whales). Includes up river movements (where tidal barrages & devices or dams could obstruct movements) or movements across open waters (offshore wind farm, wave or tidal device arrays, mariculture infrastructure or fixed fishing gears). It is acknowledged that aquaculture and fixed fishing gears represent very low scale barriers. Note: entanglement is included under Removal of non-target species pressure.

Assessment Last Updated : 08/08/2023

h **i** **j**

[View Activities](#) [View References](#)

- a. Title indicating the Feature – Pressure combination.
- b. Sensitivity assessment - this will be either a category high, medium, low, no evidence etc.
- c. Confidence indicating the confidence in the evidence for the sensitivity assessment.
- d. Tolerance category - indicates the feature’s ability to absorb or resist change or disturbance caused by the pressure.
- e. Recovery category - indicates the feature’s ability to recover from the disturbance or stress caused by the pressure.
- f. Evidence base – provides information on the supporting evidence behind the sensitivity assessment. This box is collapsible.
- g. Pressure description
- h. Assessment last updated date – indicates when the sensitivity assessment was last updated.
- i. View Activities – opens a list of activities, providing more detail on activities and their association with the Pressure/Activity.
- j. View references – a new pop-up window will appear listing all the relevant references. At the bottom of this window is a “Download” button which will download a .csv file of the reference list.

9) On the result page you also have the option to re-order your results by: Category, Feature, Pressure, Sensitivity, Confidence, Tolerance, Recovery in either ascending or descending order. The filter button will open a side bar which allows you to further filter your results by association, sensitivity, confidence, tolerance, recovery and whether it is a PMF. To apply the filter, click save at the bottom of the side pane. To clear the filter, click the reset button in the side pane.

[Filter](#) [Sort](#) [Ascending](#)

10) At the bottom of the results page, you have a few options:



- a. Download report in .csv format.
- b. Save search – this option only appears if you have created a FeAST account and are logged in. If you click this button, it will ask you to name your search, and there is an additional notes box to add a description if you wish. A .csv of the search will also be automatically downloaded.
- c. Share search result by e-mail – this button will open your default e-mail app to enable you to share a link to your result via email.
- d. Share search result on Facebook – this button will open Facebook to enable you to share a post with a link to your results.
- e. Share search result on Twitter– this button will open Twitter to enable you to tweet a link to your results.

How to: Search by Activity

- 1) Start by selecting an activity category from the list. An overview of these can be found in the glossary.
- 2) You will then be shown a list of activities that fall within that category to select from. Click on the activity you are interested in.
- 3) Once you click the activity, you should be presented with a list of pressures. You can see more information about each pressure by clicking on either the feature name or the small down arrow to the right of the pressure name, which will expand an information box. You can minimise this box by clicking the pressure name or the upwards arrow in the top right of the box.

< Select Pressures

Category **Aquaculture** Reset

Activity **Finfish culture**

Select All

Barrier to mobile species movement ^

Description ^

Cetaceans, basking shark and black guillemot only - The physical obstruction of species movements including local movements (within & between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, eels, salmon, whales). Includes up river movements (where tidal barrages & devices or dams could obstruct movements) or movements across open waters (offshore wind farm, wave or tidal device arrays, mariculture infrastructure or fixed fishing gears). It is acknowledged that aquaculture and fixed fishing gears represent very low scale barriers. Note: entanglement is included under Removal of non-target species pressure.

- 4) At this step, you should select the pressures in which you want to view results for. All the pressures are selected by default.
 - a. If you are interested in all pressures, then you can proceed to clicking the “Next: Select Features” button at the bottom of the page.
 - b. If you are only interested in certain pressures then click on the tick box next to “Select All”, this will de-select everything. You can then select your pressures of interest by clicking in the box to the left of the pressure name. Once you have selected all your pressures of interest click the “Next: Select Features” button at the bottom of the page.
- 5) You should now see a list of all features. As with the pressures list you can expand the feature list items to see more information about the feature.
- 6) All the features are selected by default. Amend this selection based on your features of interest and then click the “Next: Results” button at the bottom of the page.
- 7) You should now see a results page. At the top of this page, you can see all the filters you have previously selected.

< Results

Category **Aquaculture**

Activity **Finfish culture**

Pressures **Barrier to mobile species movement**

Features **Black guillemot**

Reset

- 8) If you wish to amend these, you can navigate back to the filter of interest by clicking on the relevant select step directly above the results title. If you wish to totally restart your search and select new option, you should click the “Reset” button.

✓ Select Category > ✓ Select Activity > ✓ Select Pressure > ✓ Select Features > 5 Results

- 9) Depending on the filters applied, the results page will show one or more entries. You can see an example result below. Each result will have the following:

a **Aquaculture in fish - Barrier to mobile species movement - Black guillemot**

Sensitivity **Medium*** Confidence **Medium** Tolerance **Not Assessed** Recovery **Not Assessed** Association **Associated**

g **Evidence Base**

Black guillemot are more likely to be adversely affected by loss of habitat if structures/devices are placed within areas that they would otherwise use for foraging Furness, R.W. & Wade, H. (2012); this species is exclusively coastal, usually feeds inshore, close to breeding sites, often associating with kelp beds (Forrester et al. 2007). Tolerance is assessed as medium with medium recovery for areas key to species life cycle.

h **Pressure Description**

Cetaceans, basking shark and black guillemot only - The physical obstruction of species movements including local movements (within & between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, eels, salmon, whales). Includes up river movements (where tidal barrages & devices or dams could obstruct movements) or movements across open waters (offshore wind farm, wave or tidal device arrays, mariculture infrastructure or fixed fishing gears). It is acknowledged that aquaculture and fixed fishing gears represent very low scale barriers. Note: entanglement is included under Removal of non-target species pressure.

i **Assessment Last Updated : 08/08/2023**

j [View References](#)

- Title indicating the Activity category – Activity – Pressure – Feature combination.
- Sensitivity assessment - this will be either be ‘Sensitive’ (high, medium, low) ‘No Evidence’, or ‘Not Assessed’.
- Confidence indicating the confidence in the evidence for the sensitivity assessment.
- Tolerance category - indicates the feature’s ability to absorb or resist change or disturbance caused by the pressure.
- Recovery category - indicates the feature’s ability to recover from the disturbance or stress caused by the pressure.
- Association type – indicates if the pressure is associated with the activity and if associated whether the feature is exposed to that activity or not.
- Evidence base – provides information on the supporting evidence behind the sensitivity assessment. This box is collapsible.

- h. Pressure description – gives a description of the pressure.
- i. Assessment last updated date – indicates when the sensitivity assessment was last updated.
- j. View references - a new pop-up window will appear listing all the relevant references. At the bottom of this window is a “Download” button which will download a .csv file of the reference list.

10) If you click to view the references, a pop-up window will appear listing the references relevant to the feature. At the bottom of this window is a “Download” button which will download a csv file of the reference list.

References for Black guillemot

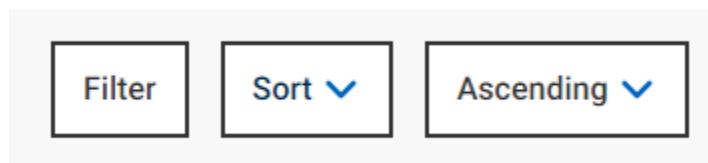
Bycatches of birds in waters off Gotland, Central Baltic Sea and potential effects on population levels

Jens Bardtrum, Anders Nissling and Rolf Gydemo. (2009) Bycatches of birds in waters off Gotland, Central Baltic Sea and potential effects on population levels by as an example of the impact of fishery bycatch on black guillemot.

[http://ec.europa.eu/dgs/maritimeaffairs_fisheries/consultations/seabirds/contributions/gotland_report2_en.pdf]

Download

11) On the result page you also have the option to re-order your results by: Feature, Pressure, Association, Sensitivity, Confidence, Tolerance and Recovery in either ascending or descending order. The filter button will open a side bar which allows you to further filter your results by association, sensitivity, confidence, tolerance, recovery, and PMF status. To apply the filter, click save at the bottom of the side pane. To clear the filter, click the reset button in the side pane.



12) At the bottom of the results page, you have a few options.



- a. Download report in .csv format.
- b. Save search – this option only appears if you have created a FeAST account and are logged in to the site. If you click this button, it will ask you to name your search, and there is an additional notes box add a description if you wish. A .csv of the search will also be automatically downloaded.
- c. Share search result by e-mail – this button will open your default e-mail app to enable you to share a link to your result via email.
- d. Share search result on Facebook – this button will open Facebook to enable you to share post with a link to your results.
- e. Share search result on twitter– this button will open Twitter to enable you to tweet a link to your results.

How to: Search by Pressure

- 1) Start by selecting one or more pressures from the list. An overview of these can be found in the glossary. All pressures will be selected by default.
 - a. If you are interested in all pressures, or are not sure which to choose, you can proceed to clicking the “Next: Feature” or “Next: Activity” button at the bottom of the page.
 - b. If you are only interested in certain pressures, click on the tick box next to “Select All” to de-select everything, then select your categories of interest by clicking in the box to the left of the category name.
- 2) Once you have selected all pressures of interest, click either the “Next: Activity” or “Next: Feature” button at the bottom of the page. (If you selected “Next: Activity” continue to step 3, if you selected “Next Feature” skip to step 6)
- 3) You will then be taken to the ‘Activity Association’ page, where you can select the level of association that the resulting activities have with the select Pressure - Feature combination. Click the drop-down arrows to see a definition of each association.

- Associated** ▼
- Associated but not exposed** ▼
- Not Associated** ▼
- Not Yet Assessed** ▼

- 4) Once selected, click ‘Next: Feature’, you will then be taken to the Feature Association page. At the top of this page, you can see all the filters you have previously selected and a list of all the features within the database. Select the features you are interested in, or leave ‘Select all’ ticked to view the results for all features
- 5) Click “Next: Results” to continue to the Activity results page which will show a list of results.

a **Military activities - aerial activity - Barrier to mobile species movement - Bank (unknown substrate)**

Sensitivity **Not Assessed** Confidence **Not Assessed** Tolerance **Not Assessed** Recovery **Not Assessed** Association **Not Associated**

Evidence Base **g** ^
Not relevant for geodiversity features

Pressure Description **h** ^
Cetaceans, basking shark and black guillemot only - The physical obstruction of species movements including local movements (within & between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, eels, salmon, whales). Includes up river movements (where tidal barrages & devices or dams could obstruct movements) or movements across open waters (offshore wind farm, wave or tidal device arrays, mariculture infrastructure or fixed fishing gears). It is acknowledged that aquaculture and fixed fishing gears represent very low scale barriers. Note: entanglement is included under Removal of non-target species pressure.

Assessment Last Updated : 08/08/2023 **i**

j [View References](#)

- a. The title indicating the Activity Category > Activity > Pressure > Feature.
- b. Sensitivity assessment - this will be either be 'Sensitive' (high, medium, low) 'No Evidence', or 'Not Assessed'.
- c. Confidence indicating the confidence in the evidence for the sensitivity assessment.
- d. Tolerance category - indicates the feature's ability to absorb or resist change or disturbance caused by the pressure.
- e. Recovery category - indicates the feature's ability to recover from the disturbance or stress caused by the pressure.
- f. Association category – shows whether the activity is associated with the pressure.
- g. Evidence base – provides information on the supporting evidence behind the sensitivity assessment. This box is collapsible.
- h. Pressure description – gives a description of the pressure.
- i. Assessment last updated date – indicates when the sensitivity assessment was last updated.
- j. View references - A new pop-up window will appear listing all the relevant references. At the bottom of this window is a "Download" button which will download a .csv file of the reference list.

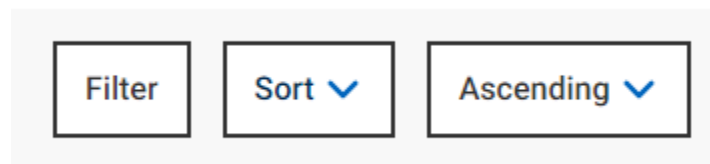
- 6) If you clicked "Next: Feature", you will be taken to the Sensitivity Association page. At the top of this page, you can see all the filters you have previously selected and the list of Sensitive scores. Select the Sensitivity scores you are interested in, or leave "Select All" ticked to view results for all sensitivities.
- 7) Click "Next: Results" to continue to the Feature results page, which will show a list of results.

The screenshot displays a feature result for "Bank (unknown substrate) - Barrier to mobile species movement". The interface includes several sections and metrics:

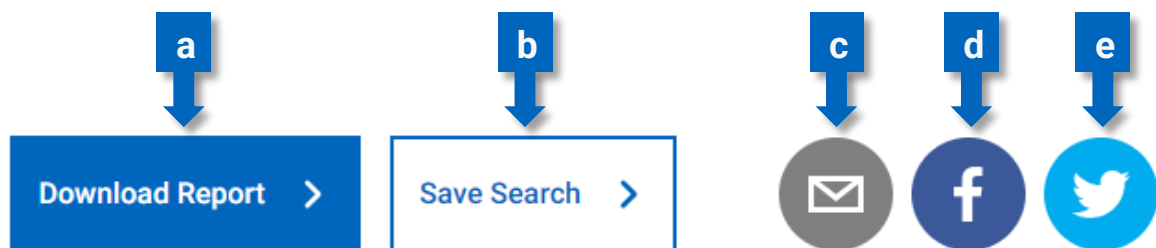
- Feature Title:** Bank (unknown substrate) - Barrier to mobile species movement (with a checkmark icon).
- Assessment Metrics:** Sensitivity (Not Assessed), Confidence (Not Assessed), Tolerance (Not Assessed), and Recovery (Not Assessed). Each metric is represented by a blue arrow pointing to a grey pill-shaped button.
- Evidence Base:** A collapsible section (indicated by a blue arrow 'f') titled "Evidence Base" with the text "Not relevant for geodiversity features".
- Pressure Description:** A collapsible section (indicated by a blue arrow 'g') titled "Pressure Description" containing a detailed text description of the pressure.
- Assessment Last Updated:** 08/08/2023 (with a blue arrow 'h' pointing to the date).
- Action Buttons:** "View Activities" (with a blue arrow 'i') and "View References" (with a blue arrow 'j') buttons.

- a. Title indicating the Feature > Pressure combination.

- b. Sensitivity assessment - this will be either be 'Sensitive' (high, medium, low) 'No Evidence', or 'Not Assessed'.
 - c. Confidence indicating the confidence in the evidence for the sensitivity assessment.
 - d. Tolerance category - indicates the feature's ability to absorb or resist change or disturbance caused by the pressure.
 - e. Recovery category - indicates the feature's ability to recover from the disturbance or stress caused by the pressure.
 - f. Evidence base – provides information on the supporting evidence behind the sensitivity assessment. This box is collapsible.
 - g. Pressure description – gives a description of the pressure.
 - h. Assessment last updated date – indicates when the sensitivity assessment was last updated.
 - i. View Activities – see a list of all the activities.
 - j. View references - a new pop-up window will appear listing all the relevant references. At the bottom of this window is a "Download" button which will download a .csv file of the reference list.
- 8) On the result page you also have the option to re-order your results by: Category, Feature, Pressure, Sensitivity, Confidence, Tolerance, Recovery in either ascending or descending order. The filter button will open a side bar which allows you to further filter your results by association, sensitivity, confidence, tolerance, recovery and whether it is a PMF. To apply the filter, click save at the bottom of the side pane. To clear the filter, click the reset button in the side pane.



- 9) At the bottom of both the Activity and Feature results page, you have a few options:



- a. Download report in .csv format.
- b. Save search – this option only appears if you have created a FeAST account and are logged in to the site. If you click this button, it will ask you to name your search, and there is an additional notes box to add a description if you wish.
- c. Share search result by e-mail – this button will open your default e-mail app to enable you to share a link to your result via email.
- d. Share search result on Facebook – this button will open Facebook to enable you to share post with a link to your results.
- e. Share search result on Twitter – this button will open Twitter to enable you to tweet a link to your results.