



Office of Research and Development

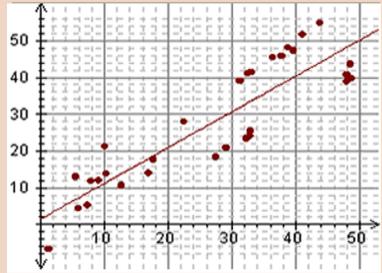
with support from the

Office of Solid Waste and Emergency Response

(T) 218-529-5225 (E) [ecotox.support@epa.gov](mailto:ecotox.support@epa.gov)



Welcome to the BSAF Dataset !



Best view at 1024x768 resolution  Don't show this screen again.

Developed by Computer Sciences Corporation, EPA FAIR II Contract, Task Order Number 5003

**OVERVIEW:** The BSAF data set was assembled by the U.S. Environmental Protection Agency, Office of Research and Development, National Health and Environmental Effects Research Laboratory, Mid-Continent Ecology Division (MED) located in Duluth, Minnesota. The BSAF data set was assembled from Superfund site data and the data were obtained i) directly from the remedial project managers and risk assessors for their sites, ii) from NOAA's watershed website, where site data have been posted, and iii) for a few sites, from the peer reviewed literature. The BSAF data set is intended as a tool for remedial project managers and risk assessors.

U.S. Environmental Protection Agency, OSWER/OSRTI provided funding (via the Waste RCT) to MED for the screening, coding and assembly of the raw sediment and fish chemical concentration data. The coding and assembly of the data were performed, primarily, by MED's on-site support contractor, Wilson Environmental Laboratories. In addition to a limited amount of coding and assembly of data, MED staff performed the calculation of individual BSAFs, review of the final BSAFs, and assembly of the Microsoft Access data file for the user tool.

**SEARCH CRITERIA:** The BSAF data base will allow searching on the data fields below. As search selections are made, the database drills down to the specific information on each selection.

- Habitat (Fresh, Marine or Tidal)
- Superfund Site (e.g. Green Bay)
- Organism (e.g. American Eel)
- Sediment Group (Specific Sampling area within the Superfund Site)
- Tissue (e.g. offal)
- Organism Class (e.g. Bivalvia)
- Organism Media (Brackish, Freshwater, Marine)
- Chemical (Chemical group or specific chemical)

Search | Plot BSAF By Location | Maintenance | About BSAF Data Set

**Search Page: BSAF Data Set**

Search Criteria | Report Selection | Results

\*Note - You can filter the selection boxes by Habitat, Superfund Site, Tissue, Organism Type and Organism class. You can make multiple selections. Not selecting anything in the selection boxes is the same as selecting all items

**Habitat:**  All  Fresh  Marine  Tidal

**Superfund Site:**

Superfund Site	Habitat
AMTL Charles River	Fresh
Anacostia River	Fresh
Calcasieu Estuary	Tidal
Centredale Manor	Fresh
Elizabeth River	Tidal
Housatonic River	Fresh
Hudson River	Fresh
Kalamazoo River	Fresh
McCormick & Baxter	Fresh
Muddy Cove	Fresh
Naval Education & Training Center, Dereckort Shipyard	Marine
Naval Education & Training Center, McAllister Point Landfill	Marine

**Tissue:**

egg  
filet  
hepatopancreas  
muscle  
offal

**Organism Class:**

Actinopterygii  
Arachnida  
Bivalvia  
Clitellata

**Organism Media:**

Brackish  
Freshwater  
Marine

**Chemicals:**

Chemical	CAS
<input type="radio"/> All	dibutyltin 1002-53-5
<input type="radio"/> PCBs	heptachlor epoxide 1024-57-3
<input type="radio"/> PCDD/Fs	4-methylphenol 106-44-5
<input type="radio"/> TEFs	1,4-dichlorobenzene 106-46-7
<input type="radio"/> PAHs	bis(2-ethylhexyl)phthalate 117-81-7
<input type="radio"/> PEST	hexachlorobenzene 118-74-1
<input type="radio"/> Other	anthracene 120-12-7
<input type="radio"/> Total PCB	1,2,4-trichlorobenzene 120-82-1
	pyrene 129-00-0
	PCB 4 13029-08-8
	PCB 10 13029-08-8
	PCB 29 132-64-9
	PCB 5 132-65-0
	PCB 51 15862-07-4
	PCB 54 15968-05-5
	PCB 57 16605-91-7
	PCB 8 16605-91-7
	PCB 31 16606-02-3
	2,3,7,8-TCDD 1746-01-6
	PCB 116 PCB 117 PCB 85 18259-05-7
	benzo(a,h,i)perylene 191-24-2
	benzo(e)pyrene 192-97-2
	indeno(1,2,3-cd)perylene 193-20-5

**Organism:**

Organism Common Name	Biota Tissue	Biota Age Class	Tax Order	Organism Latin Name	Biota Tissue Supp
alewife	whole body	adult	Clupeiformes	Alosa pseudoharengus	composite
alewife	whole body	YOY	Clupeiformes	Alosa pseudoharengus	composite
alewife floater	whole body		Uromida	Anodonta imbecilis	composite
American eel	filet		NR	Anguilla rostrata	
American eel	filet		NR	Anquilla rostrata	composite

**Sediment Group:**

Group Short Code	Sediment Sampling Location Description	Sediment Spatial Group
AMTL01_1	Charles River-Adjacent Reach	SDA14A
AMTL01_10	Charles River-Upstream Reach	SDU36A
AMTL01_11	Charles River-Upstream Reach	SDU37A
AMTL01_12	Charles River-Upstream Reach	SDU41A
AMTL01_13	Charles River-Upstream Reach	SDU42A

**Report Options:**

- Retrieve All Data

Retrieve BSAF Ratios  
(2 chemicals need to be selected)

Make Probability Plot  
(1 to 10 chemicals need to be selected)

Retrieve BSAFs

Sort By:  Site  Species  Chemical

Make BSAF vs ??? Plot  
(1 chemical needs to be selected)

X-Axis:  Sed Avg (ug/kg oc)  Biota Avg (ug/kg lipid)  Organic carbon content  Lipid content  Sed Avg (ug/kg dw)  Biota Avg (ug/kg ww)

**REPORT SELECTIONS:** The report options tab, allows you to select the preferred Report Type. This tab also provides a Search Summary of the selections made on the Search Screen. The report options are:

- Retrieve All Data
- Retrieve BSAF Ratio
- Make Probability Plot
- Retrieve BSAFs (User can select the sort option of Site, Species or Chemical)
- Make BSAF vs ??? Plot ( User can select the variable to plot the BSAF against)

**RESULTS:** The results tab displays the search information in the report format requested. Reports can be exported in Comma Separated Value (\*.csv) format. Reports may contain the following Data. Plots can be printed using the Print Form button or saved to a file by selecting Control – Print Screen buttons and pasting into an application such as Microsoft Paint.

- **Location Information:** Superfund Site, Sampling Locations, Sampling Latitude/Longitude, Depth
- **Organism Information:** Common Name, Latin Name, Tissue, Age Class, Number of Organisms, Weight, Length
- **Chemical Information:** Chemical Name and CAS Number
- **Agency Information:** Comments, Data/Sample Owner
- **Residue Information:** Sediment Residues, Biota Residues, Lipid Content, BSAFs

Search Page: BSAF Data Set

Search Criteria | Report Selection | Results

Results: All Data

Site ID	Superfund Site	Organism Com	Organism Latin	Biota Tissue	Biota Tissue Su	Biota Age Class	Chemical	CAS
ELI201	Elizabeth River	brackish water c	Rangia cuneata	whole body	single or multipl		p,p'-DDD	72-54-8
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDD	72-54-8
ELI201	Elizabeth River	brackish water c	Rangia cuneata	whole body	single or multipl		p,p'-DDE	72-55-9
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDE	72-55-9
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDD	72-54-8
ELI201	Elizabeth River	brackish water c	Rangia cuneata	whole body	single or multipl		p,p'-DDE	72-55-9
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDE	72-55-9
ELI201	Elizabeth River	brackish water c	Rangia cuneata	whole body	single or multipl		p,p'-DDD	72-54-8
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDD	72-54-8
ELI201	Elizabeth River	brackish water c	Rangia cuneata	whole body	single or multipl		p,p'-DDE	72-55-9
ELI201	Elizabeth River	ribbed mussel	Geukensia dem	whole body	single or multipl		p,p'-DDE	72-55-9

Record: 1 of 11

Search | Plot BSAF By Location | Maintenance | About BSAF Data Set

### Plot BSAF By Location

Site I

Site ID Superfund Site

XXXX XXXX

SHEB01 Sheboygan River

ROAN01 Roanoke River

PORT01 Portland Harbor

OGDE01 Ogden Railroad

Sediment Spatl Sediment Spatial Group Sediment Sampling Location Description

ROAN01\_2 R1-404-SDA| R1-406-SDA Eastmost River, approx. 1000 feet from the R

ROAN01\_3 R2-407-TXA| R2-408-SDA| R Roanoke River, downstream of contaminator

ROAN01\_4 R1-415-SDA| R1-416-SDA| R Roanoke River, downstream of contaminator

ROAN01\_5 R2-403-TXA| R1-409-SDA Roanoke River, downstream of contaminator

ROAN01\_6 R1-406-SDA Roanoke River, downstream of contaminator

ROAN01\_8 R2-425-SDA| R2-428-SDA| R Roanoke River, upstream of contaminati

Sediment Spatl G| Organism Common | Organism Latin Name| Biota Tissue | Biota Age Clas

ROAN01\_2 yellow catfish Ichthyus nebulos offal

Make Graph

Site II

Site ID Superfund Site

XXXX XXXX

SHEB01 Sheboygan River

**PLOT BSAF BY LOCATION:** This tab allows you to plot the BSAF data from one location against the BSAF data from another location as long as the two locations have a common chemical. The following data must be selected:

- Superfund Site (I & II)
- Specific Location(s) within the Superfund Site (I & II)
- Organism(s) (I & II)

**MAINTENANCE:** The Maintenance tab allows users the ability to import, edit and delete data in the BSAF database. User defined data files can be uploaded to the database using the template is provided. Users are also able to edit Look-Up Tables and Compact the database. You data can then be searched retrieved and plotted as the original data set.

**TOTAL RECORDS:**

- Superfund Sites = 20
- Records = 19961

**Help:** The full user guide is available at the bottom of the database windows by selecting this icon.



Search | Plot BSAF By Location | Maintenance | About BSAF Data Set

### Maintenance

Delete User-Entered Sites and Their Corresponding Data

Below is a list of all the EPA entered and User-entered sites. You may select a User-entered site to delete the site and its corresponding data.

View:  All  User Data  Original Data

User Entered	Site ID	Superfund Site
Yes	AHTL01	AHTL Charles River
No	ANAC01	Anacostia River
No	CALC01	Calcasieu Estuary
No	CENT01	Centredale Manor
No	DR1P01	Naval Education & Training Center, Dreditor Shipyard
No	ELI201	Elizabeth River
No	GBAY01	Green Bay
No	HOU501	Housatonic River
No	HUCK01	Hudson River
No	KALZ01	Kalamazoo River
No	LMSCH1	Southern Lake Michigan
No	MCAL01	Naval Education & Training Center, McAllister Point Landf
No	MCBO01	McCormick & Boister
No	MUD001	Muddy Cove
No	NBEL01	New Bedford Harbor
No	OFTA01	Naval Education & Training Center, Old Fire Fighting Tra
No	OGDE01	Ogden Railroad
No	PORT01	Portland Harbor
No	ROAN01	Roanoke River
No	SHEB01	Sheboygan River

Delete Site Data

Import Data into BSAF Data Set

Excel Upload Template Upload from MSE excel

Edit Look-up Tables

View/Edit Sites

View/Edit Species

View/Edit Lat-Long

View/Edit Chem Class

Other Utilities

The Compact Utility reduces the physical size of your database by ridding the database of any excess space created by deleting and modifying data.

Compact/Repair Data Set