

Dredging Operations Technical Support: Ocean Disposal Database and Bioaccumulation Databases

Presented by Justin Wilkens

Environmental Laboratory

Engineer Research and Development Center

Vicksburg, MS

DOTS Webinar

April 19, 2017



Presentation Outline

- **Dredging Operations Technical Support (DOTS)**
- **Transferring knowledge through databases**
 1. **Ocean Disposal Database (ODD)**
 2. **Biota-Sediment Accumulation Factor Database (BSAF)**
 3. **Environmental Residue Effects Database (ERED)**

Dredging Operations Technical Support (DOTS)

- Trusted partner since 1978
- Provide technical support to USACE
- Strong technology transfer activities

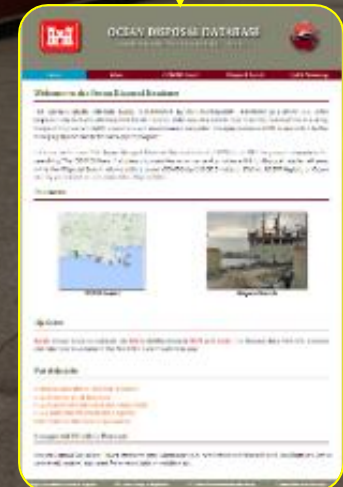
Submit a DOTS Request




Tech
note/report

Workshop/
Conference

Microsites



The background image is a composite. The upper portion shows the white superstructure of a ship, including a bridge with windows and various antennas and sensors on the mast. The ship is moving through the water, creating a large, turbulent wake with white foam and dark, churning water. The lower portion of the image is a close-up of this turbulent water, showing the texture of the foam and the dark water. The sky is blue with scattered white clouds.

Ocean Disposal Database (ODD)

<https://odd.el.erdc.dren.mil/>

The background image shows a high-angle view from the deck of a ship. A large, black, flexible discharge pipe runs along the side of the ship, extending into the churning sea. The ship's deck is visible, featuring railings and various equipment. The water is dark and turbulent, with white foam from the ship's wake. The sky is overcast and grey.

ODD

- Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter 1972 (***London Convention***)
- Marine Protection, Research and Sanctuaries Act (***MPRSA***)

ODD

- Database created to compile information from districts disposing of dredged material at an ocean site
- Data obtained by various means over the years
- Annually cooperate with USEPA to create LC report to fulfill obligation

Ocean Dredged Material Disposal Sites

➤ MPRSA

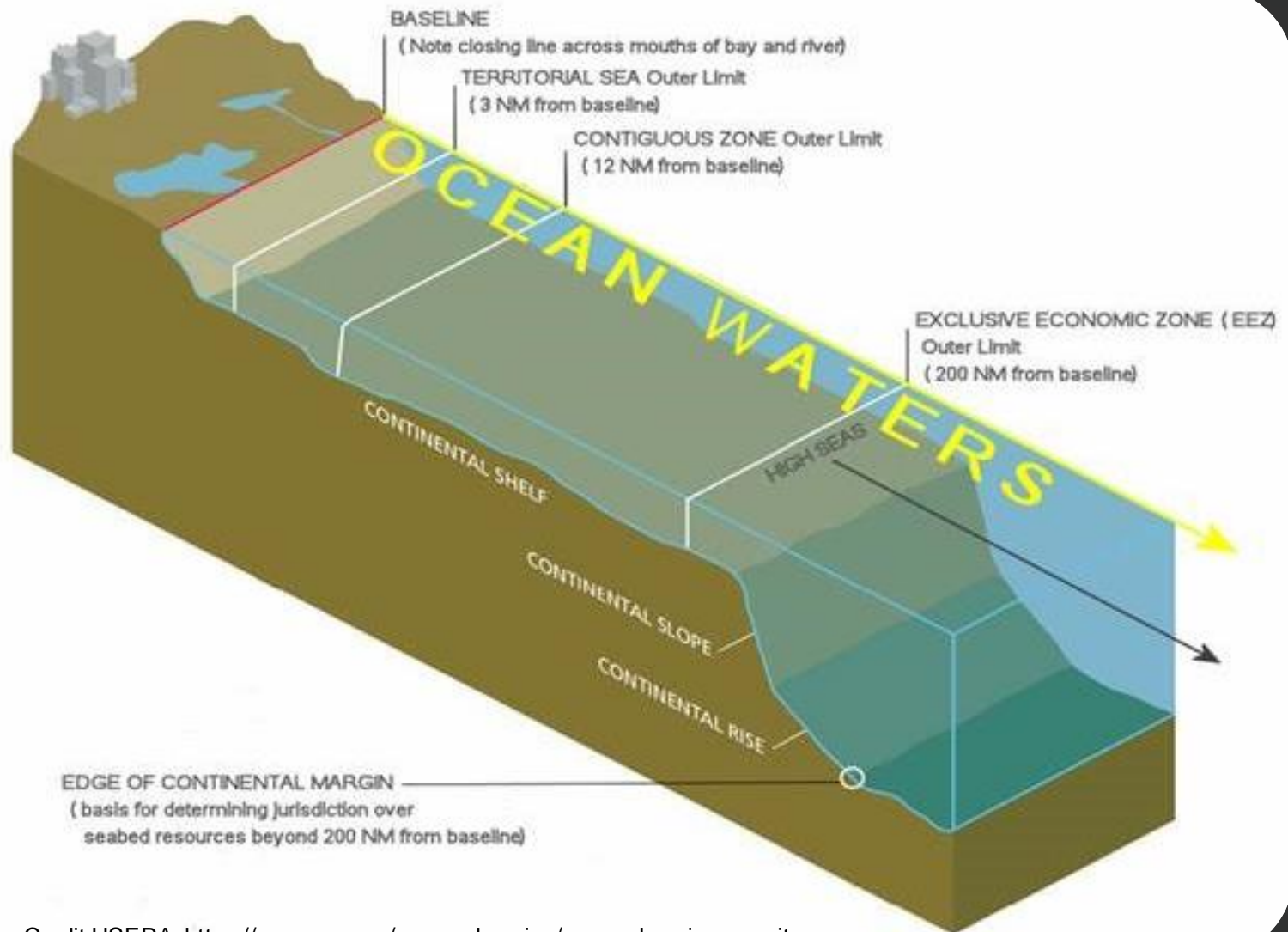
section 102 sites

➤ Designated by USEPA

➤ 40 CFR Part 228.15

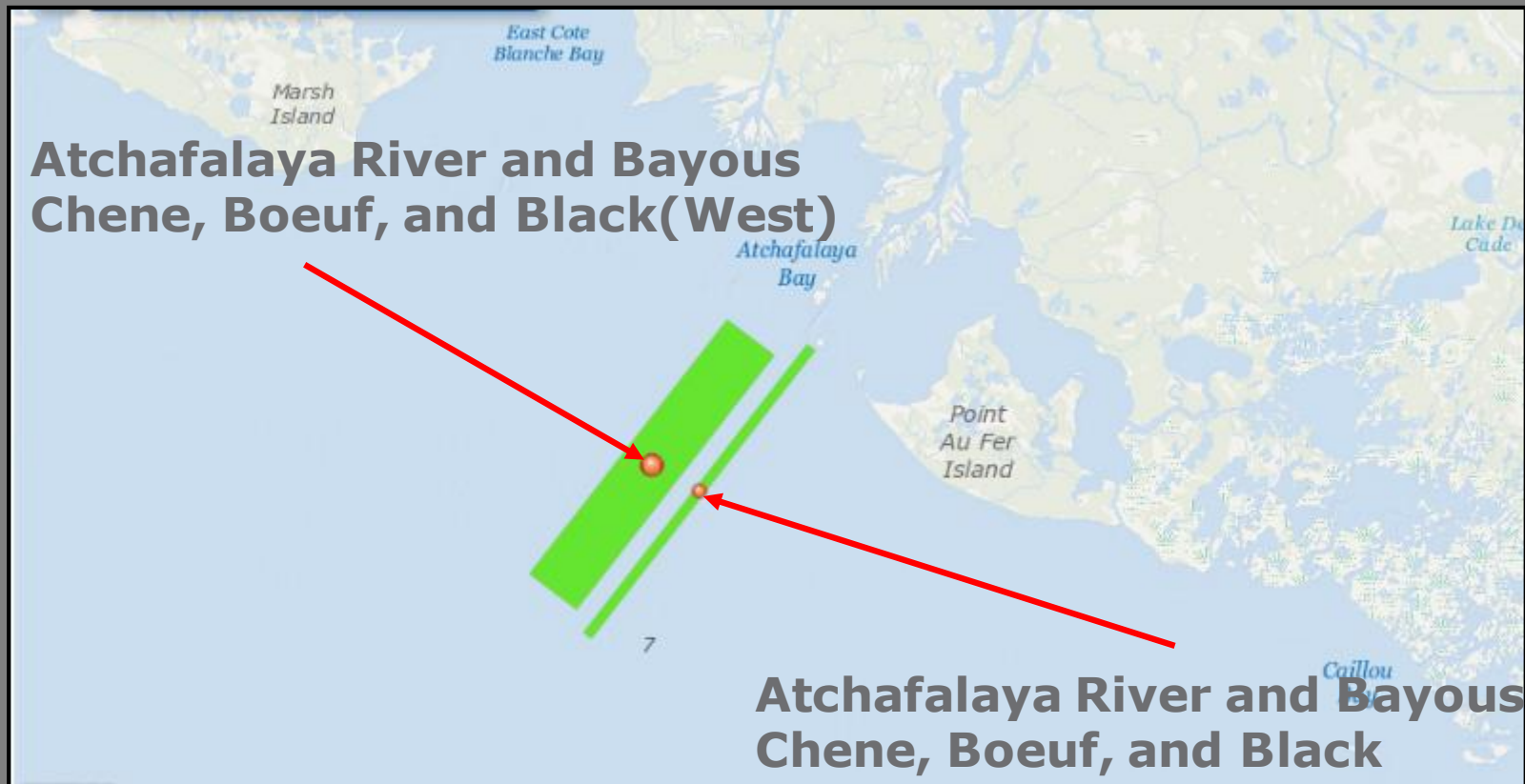
section 103 sites

➤ Designated by USACE
and agreed upon by
USEPA



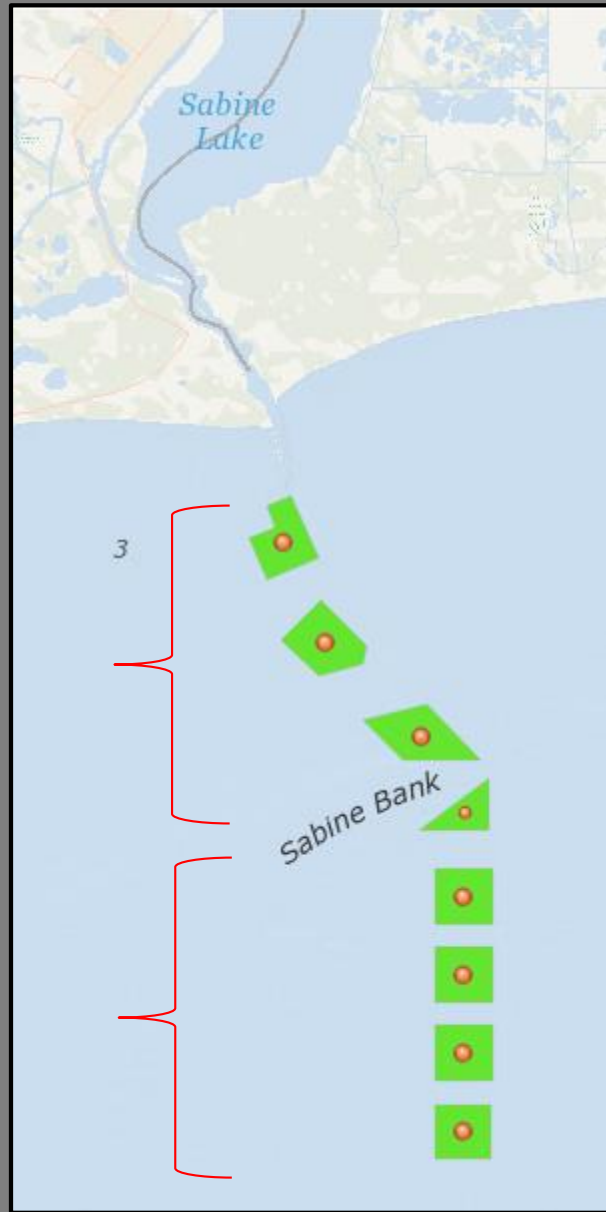
Credit USEPA: <https://www.epa.gov/ocean-dumping/ocean-dumping-permits>





Sabine-Neches, Dredged Material Sites 1-4

Sabine-Neches Dredged Material Sites A-D



Innovative solutions for a safer, better world





Corpus Christi Ship Channel

Corpus Christi New Work (formerly Homeport Project)



Innovative solutions for a safer, better world

2016 OCEAN DISPOSAL DATA SUBMITTAL FORM

Instructions: The form is used to submit information about the transport and disposal of dredged material. This includes also designated by (1) the USEPA under MPRSA section 101, and (2) all short-term use sites designated by USACE under MPRSA section 103 and agreed upon by USEPA.

1. Name of Contact (First, Last, Initial)

2. USACE District

4. Name of Dredge Project (All separate forms should be completed for each project)

6. Location of Dredging Project (e.g., Mississippi River, Vicksburg, MS)

10. Dredging Method (A)

11. Method of Transport (A)

14. Dredging Method (B)

15. Method of Disposal (B)

Where was your dredged material disposed of at?

X 16. District

16. Site

MONITORING: (1) Compliance monitoring and/or (2) field monitoring of disposal operations in accordance with specific site use requires selecting process were correct and sufficient to protect the environment.

21. Was compliance monitoring performed?

Is there access to a compliance and/or a field monitor?

23. Compliance reference:

24. Field reference:

If you provide a web address please do so.

25. If Field Monitoring was conducted, what type of only. Select all that apply. Date of survey is not needed if OODMS are not performed annually. For these surveys select "other" and explain.

	Before dumping	During dumping	After dumping	Other explain
Bathymetry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biological	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

INSTRUCTIONS

Purpose of form: The form is used to submit information about the disposal of dredged material at ocean dredged material disposal sites (ODMDS). This includes (1) all sites designated by the USEPA under MPRSA section 102; and (2) all short-term use sites designated by USACE under MPRSA section 103 and agreed upon by USEPA.

Who must submit data: Any USACE district transporting dredged material to an ocean site, designated under MPRSA section 102 or 103, for disposal, must submit ocean disposal data. Submit a separate form for each dredge project. Data is reported for the previous calendar year (i.e., in 2017 submit disposal data for calendar year 2016).

Question 1-4: Provide the ocean disposal point of contact, USACE district, DQM identification number (preferable) or other contract number (e.g., DIS), and dredge project name.

Question 5: Select whether the project is Federal or permitted and if the work is new or maintenance. Federal projects are authorized under MPRSA section 103 to transport uncontaminated dredged material for the purpose of disposal into ocean waters at designated sites. All other transportation of dredged material for the purpose of ocean disposal is permitted by the USACE under MPRSA section 103. New dredging work includes removal of materials previously undisturbed (e.g., new navigation channel, expansion of existing channel). Maintenance dredging is the removal of accumulated sediment from an existing navigation channel.

Question 6-8: Provide the location of the dredging project, start date, and end date. Ocean disposal is reported for a calendar year but sometimes dredge projects cross years. Only report the quantities disposed of during the requested reporting year. If the project crosses years it will need to be reported again the following year. If a project starts/stops often only report the first date dredging started in the reporting calendar year. In cases where projects cross calendar years, always use January 1 as the start date. The ending date is the date dredge operations are complete. If the project crosses calendar years, always use December 31 as the end date.

Question 9: The former selections (slurry or clumped) have been replaced by cohesive or non-cohesive (generally composed of clay, silt and fine sand and having a fluid consistency).

Question 10-17: Information about the dredge operation- Provide method used to dredge; method used to transport dredged material to an ocean site; and method use to place material at ocean site. Select the frequency of disposal. If the material is transported to a site 24/7, choose continuous; if material is transported to the ocean site during an 8-12 h work day only, choose daily; if the intervals between trips to the ocean site is longer than a day (24 h) then choose intermittently.

Question 18-20: Information about the ocean dredged material disposal site- Enter USACE district to filter ocean sites by district. Select the ocean site where the dredged material was placed. Enter the quantity in cubic yards. If your site is not listed inform the database manager and enter the site name in the notes section.

Question 21-24: Information about compliance and field monitoring is reported here. Compliance monitoring is used to verify that transport and placement conditions are met (e.g., compliance of disposal operations in accordance with specific site use requirements; was the material placed at the correct site; was the material placed in the correct area at the site; was there a short dump). This applies to Federal and permitted dredge projects. Field monitoring determines that assumptions made during permit and OODMS selecting process were correct and sufficient to protect the environment and human health. This is often based on Environmental Impact Statements and Site Management and Monitoring Plans. Examples of field monitoring at the OODMS include bathymetry and physical, chemical and biological testing or others (e.g., trawling surveys). If monitoring occurred select "yes". Enter a reference for a monitoring report if there is one. DQM is often reported as a compliance reference. A site management and monitoring plan is an acceptable field reference. If other references are available please list them.

Question 25: Information about the field monitoring activities at the OODMS are reported here. This may include bathymetry and physical, biological and chemical testing. Other surveys (e.g., trawl surveys) may be reported as "other" and explained in the notes.

Question 26: Information about an adverse impact- if field monitoring determines that assumptions made during permit and OODMS selecting process were not sufficient to protect the environment and human health then this is an adverse impact.

Question 27: Information about compliance monitoring- if the placement at sea operations were found to be in compliance with placement operations (i.e., used the correct site, no short dump, no burial of coral reefs, etc.) then select "yes". Otherwise select no and answer whether follow up action is planned (yes/no).

Question 28: Information about site management (select all that apply)- Selective disposal refers to using a specific area of the OODMS. Seasonal restrictions refer to disposal during restricted time periods. Capping refers to disposal of material followed by covering (cap). None refers to no site management performed.

Question 29: Information about dredged material proposed to be disposed of at an ocean site- all dredge material prior to disposal at an ocean site must be tested for suitability. These tests occur approximately every 5 years depending on circumstances. If dredged material met the exclusion criteria (i.e., did not require testing- sand, rock) then answer "Yes" and stop. If the material did not meet exclusion criteria then answer "No" and enter the last year testing was completed.

Question 30: Space for additional notes or comments.

been found beyond that predicted?

ODMDS please answer the following:

Select all that apply.

ing restricted time periods. Capping refers to disposal of material

g Was Used

None

y EPA prior to disposal. Dredged material which meets criteria ng. When dredged material does not meet the criteria in

(e.g., commonly conducted every 5 years). If there were no

or help!

save the form. After saving the form your signature ument so may still change responses. When ERDC et any issues. Once accepted for inclusion into the

ed by:

Disposal Database Manager, ERDC

ally signed your current form, click on "Reset Form" ton will be locked after ERDC electronically signs the

Members Area > London Convention and Protocol > Dump Sites

1. Contact Points 2. Dump Sites 3. Annual Activity 4. CO₂ Storage 5. Monitoring

Dump Sites / United States

The LC/LP reporting system is based on the designation of dedicated sites for dumping of wastes, in accordance with the guidance.

In this section, the sites are identified through a code and location, which is then used in the annual reporting of permits, wastes types and amounts (see tab 3, 'Annual Activity').

Site details

LC/LP dump site code: US - 002

Site name: Massachusetts Bay, MA

Note: Country name can be specified for 'sea area' and 'sub-sea area' below.

Major ocean area: Western Atlantic, Eastern Pacific and Adjacent Waters

Sea area (can be country name): Gulf of Maine

Sub-sea area: Massachusetts Bay

Internal waters: ☐ Yes ☒ No


Site shape/type and geographical coordinates:

Circle ☐ Decimal degrees ☐ Degrees and minutes

Centre point	Latitude	Longitude
1	42.42	-70.58 REMOVE

Circle radius: 1852 m

Maps:

 Title/description: Massachusetts Bay [Remove](#)

Filename: us_002.png (705 KB)

Language: English

[Attach files](#)

Additional information:

MPRSA 102 site; dredged material disposal only; NAD1983

[« Cancel](#) [Save »](#)

Reporting to the International Maritime Organization (IMO)

➤ USACE w/USEPA generate report and agree on required data

➤ Submit data through IMO website module by October 1 for ocean disposal occurring in the previous calendar year

Dump Sites / United States

The LC/LP reporting system is based on the designation of dedicated sites for dumping of wastes, carefully selected taking guidance.

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Site details

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Note: Country name can be specified for 'sea area' and 'sub-sea area' below.

Major ocean area: (Western Atlantic, Eastern Pacific, and Adriatic Sea area (specify country name):

Sub-sea area: Massachusetts Bay

Internal waters: ☐ Yes ☒ No

Site shape/type and geographical coordinates:

☐ Circle ☒ Decimal degrees ☐ Degrees and minutes

Centre point	Latitude	Longitude
1	42.42	-70.58

Circle radius: 1852 m

Maps:

Title/description: Massachusetts Bay
 Filename: us_002.png (705 KB)
 Language: English

Attach files

Additional information:

MPRSA 102 site; dredged material disposal only; NAD1983

Cancel Save

ODD Website Application

➤ Constructed by ERDC

➤ Displays ODD data



OCEAN DISPOSAL DATABASE

DREDGING OPERATIONS TECHNICAL SUPPORT



Home

About

ODMDS Search

Disposal Search

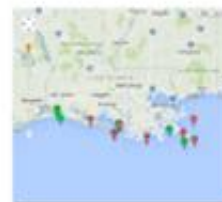
Quick Summary

Welcome to the Ocean Disposal Database

The Ocean Disposal Database (ODD) is maintained by the Environmental Laboratory (EL) of the U.S. Army Engineer Research and Development Center (ERDC). ODD provides data to help meet the needs of the U.S. Army Corps of Engineers (USACE) operations and maintenance navigation dredging missions. ODD is supported by the Dredging Operations Technical Support program.

Information for over 100 Ocean Dredged Material Disposal Sites (ODMDS) from 1976 to present is available for searching. The 'ODMDS Search' displays disposal sites on a map and provides a link to disposal data for all years while the 'Disposal Search' allows visitors to sort ODMDS by USACE Division or District, USEPA Region, or Ocean and by year(s) and returns associated disposal data.

Features



ODMDS Search



Disposal Search

Updates

3,206 dredge projects dumped into 128 ODMDSs between 1976 and 2015. The disposal data from the previous calendar year is updated in the fall of the current calendar year.

Participants

Dredging Operations Technical Support
 U.S. Army Corps of Engineers
 U.S. Army Environmental Laboratory, ERDC
 U.S. Environmental Protection Agency
 International Maritime Organization

Suggested Citation Format

Ocean Disposal Database. (Year). Environmental Laboratory, U.S. Army Engineer Research and Development Center. Retrieved (Month, day, Year) from <http://odd.el.erdc.dren.mil>.

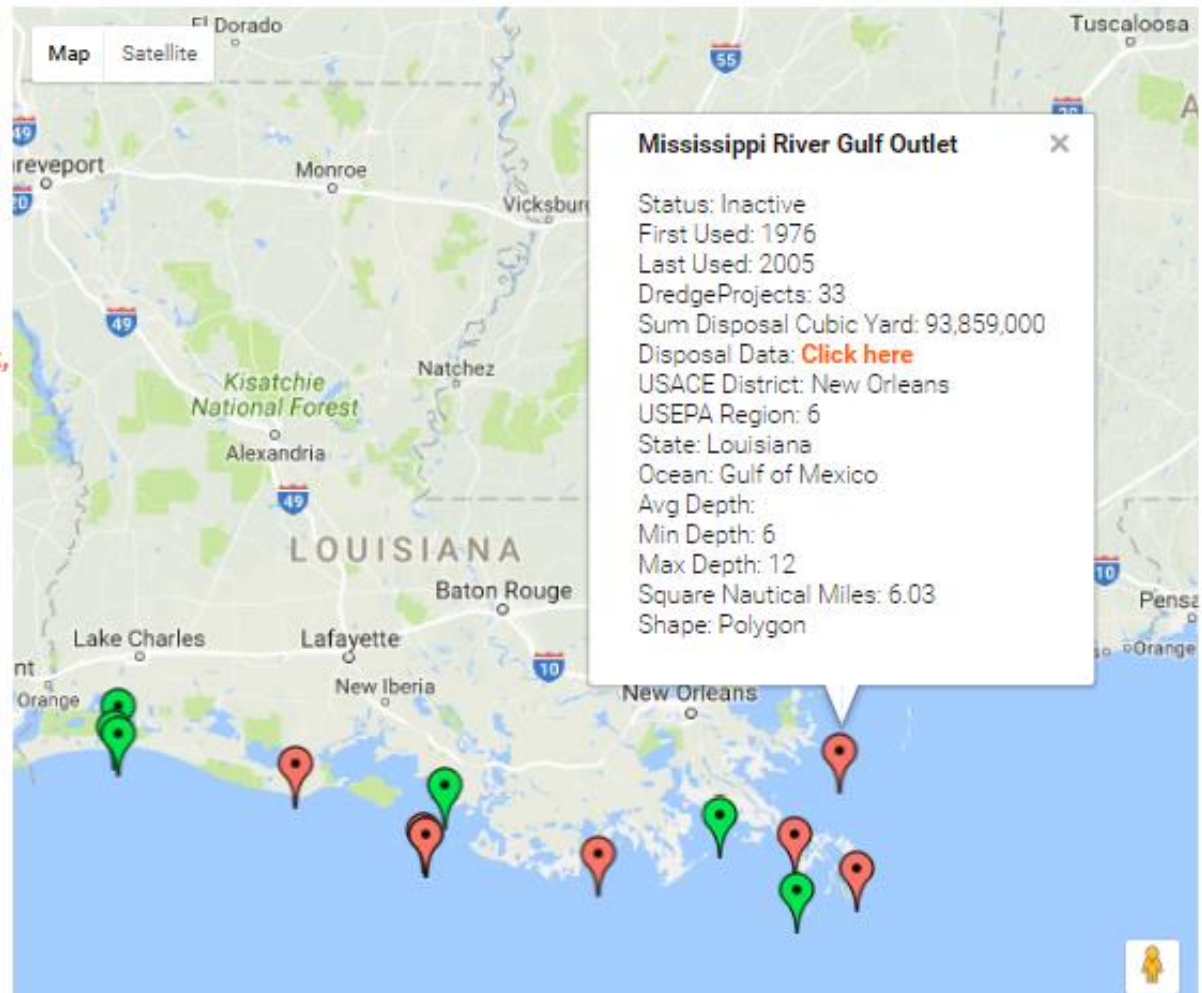
ODMDS Search

This map contains ODMDS location markers. Filter ODMDS by USACE Division. A GREEN marker represents a site is actively used while a RED marker represents a site is inactive. Click on the marker to see a description of the site. If a site has been used, a link to disposal data will be displayed in the description. This link returns disposal data for all years. Alternatively, use the Disposal Search query to look for specific disposal year(s).

Select Division

Mississippi Valley ▾

Atchafalaya R., Bayous Chene, Boeuf, Black (East)
Atchafalaya River Bar 103
Atchafalaya River Bar Channel
Atchafalaya River, Bayous Chene, Boeuf, Black, LA (West)
Barataria Bay Waterway
Calcasieu Material Site 1
Calcasieu Material Site 2
Calcasieu Material Site 3
Freshwater Bayou, Bar Channel
Houma Navigation Canal
Mississippi River Gulf Outlet
Mississippi River South Pass
Mississippi River Southwest Pass
Mississippi River Tiger Pass Bar Channel



Disposal Search

Use the filters below to view USACE projects that placed dredged material into an ODMDS. Data will be presented in an HTML table. This can be copied to your clipboard and pasted into an Excel workbook. You must make at least one selection before searching.

NOTE: Reporting requirements have changed over time; therefore, projects do not have the same level of detail nor do districts report the same level of detail. Some ODMDSs do not receive dredge material every year so your search may return no results. Please report errors to the [database manager](#).

Select a Location

☒ **USACE Division**

MVD (Mississippi Valley) ▼

☐ **USACE District**

MVN (New Orleans) ▼

☐ **Ocean**

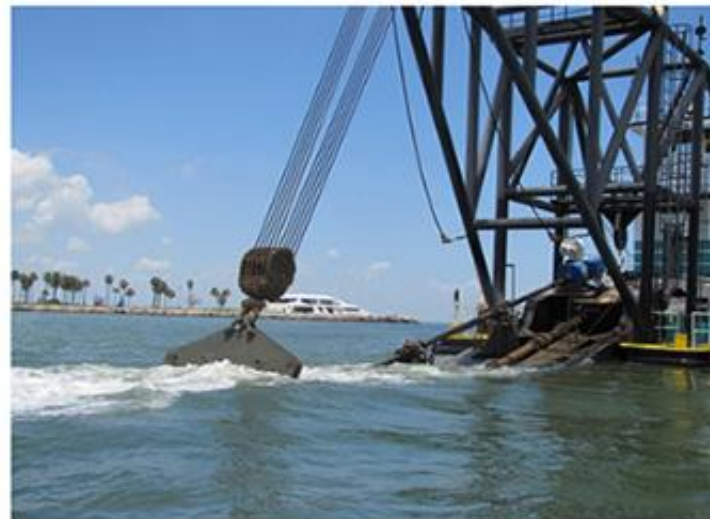
Atlantic ▼

☐ **USEPA Region**

Region 1 ▼

☐ **Time Frame (default all years)**

From 2015 ▼ To 2015 ▼



A dredge works in Galveston Bay in order to ensure America's waterways remain open for navigation and commerce (DVID photo).



Biota-Sediment Accumulation Database (BSAF)

<https://bsaf.el.erdc.dren.mil/>



Search

Web of Science™ Core Collection

Search for BSAF data

Marked List

Welcome to the new Web of Science! View a brief tutorial.

Basic Search

biota sediment accumulation factor

+ Add Another Field | Reset Form

Topic

Search

Click here for tips to improve your search.

TIMESPAN

☒ All years

☐ From 1988 to 2017

▶ MORE SETTINGS

- BSAF formula defined
- Exposure to organic compound
- Chemical clearly identified
- Fish or other aquatic organism

▶ Customer Feedback & Support

▶ Additional Resources

▶ What's New in Web of Science?

▶ Customize your Experience

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US Army Corps of Engineers USACE

Like

About

Environ Residue Effects

BSAF Data Entry

New

Edit

Ref Display: Aamir et al 2017

Year: 2017

BSAF & support

Link C:\BFAF Papers\20

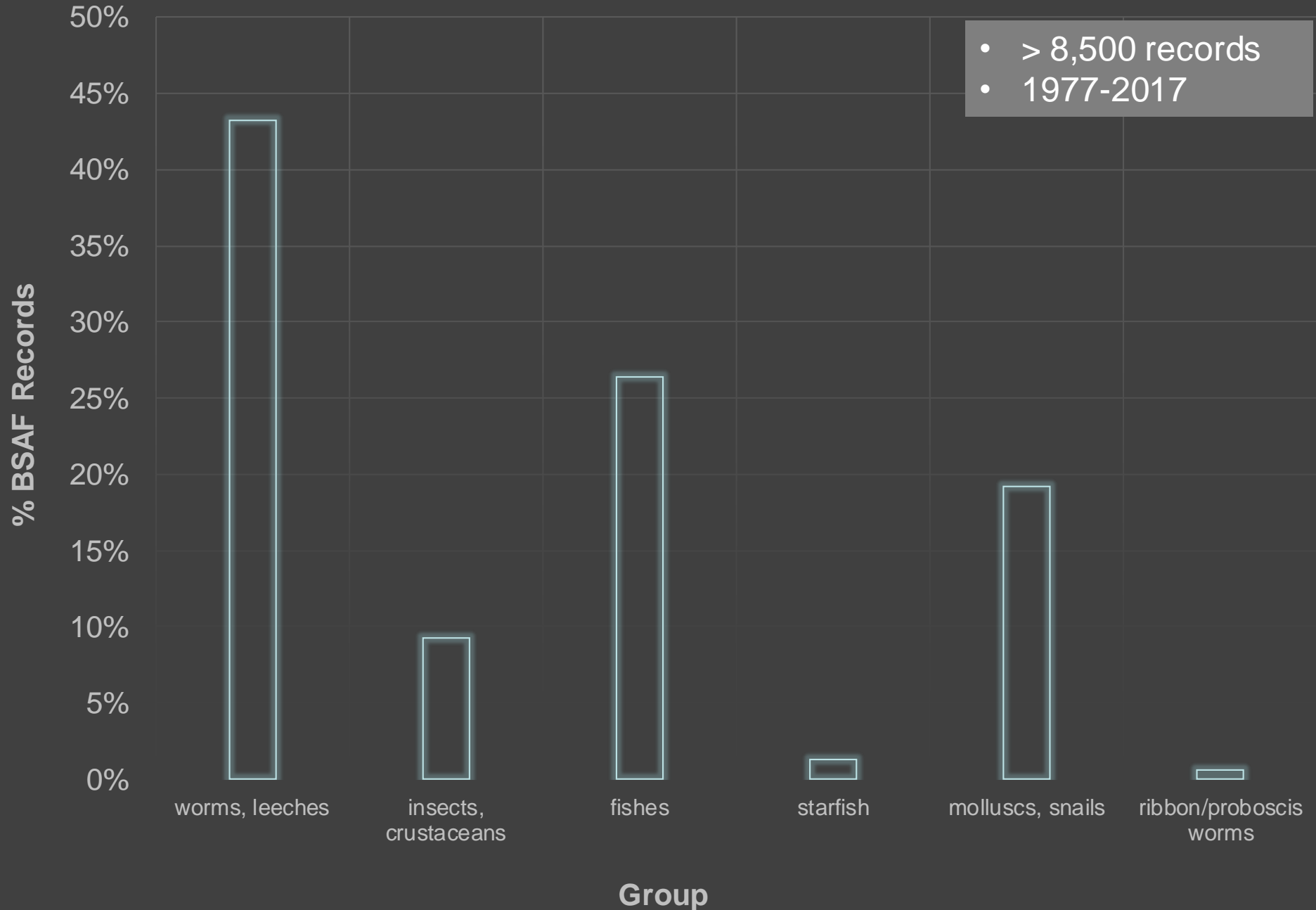
Author(s): Aamir M, S Khan, M Tang, Z Qamar, A Khan, J Nawab

Title: Congener-specific evaluation of biota-sediment accumulation factor model for HCHs and DDTs under small-scale in situ riverine condition

Journal of Soil and Sediments

BSAFID	STyp	Species	W/C	OrgCollectNote	Age	Chem	Wat	Lndmrk	Sed	Time
11505	F	Schizothorax plagiatus	W	NI	Adult	alpha-HCH	Kabul River	downstream	N	Feb
11506	F	Schizothorax plagiatus	W	NI	Adult	beta-HCH	Kabul River	downstream	N	Feb
11507	F	Schizothorax plagiatus	W	NI	Adult	Lindane	Kabul River	downstream	N	Feb
11508	F	Schizothorax plagiatus	W	NI	Adult	Hexachlorocyclopentadiene	Kabul River	downstream	N	Feb
11509	F	Schizothorax plagiatus	W	NI	Adult	HCH [total]	Kabul River	downstream	N	Feb
11510	F	Schizothorax plagiatus	W	NI	Adult	o,p'-DDE	Kabul River	downstream	N	Feb
11511	F	Schizothorax plagiatus	W	NI	Adult	p,p'-DDE	Kabul River	downstream	N	Feb
11512	F	Schizothorax plagiatus	W	NI	Adult	o,p'-DDD	Kabul River	downstream	N	Feb
11513	F	Schizothorax plagiatus	W	NI	Adult	p,p'-DDD	Kabul River	downstream	N	Feb
11514	F	Schizothorax plagiatus	W	NI	Adult	o,p'-DDT	Kabul River	downstream	N	Feb
11515	F	Schizothorax plagiatus	W	NI	Adult	p,p'-DDT	Kabul River	downstream	N	Feb
11516	F	Schizothorax plagiatus	W	NI	Adult	DDTs [total]	Kabul River	downstream	N	Feb
11517	F	Tor putitora	W	NI	Adult	alpha-HCH	Kabul River	downstream	N	Feb
11518	F	Tor putitora	W	NI	Adult	beta-HCH	Kabul River	downstream	N	Feb
11519	F	Tor putitora	W	NI	Adult	Lindane	Kabul River	downstream	N	Feb
11520	F	Tor putitora	W	NI	Adult	Hexachlorocyclopentadiene	Kabul River	downstream	N	Feb
11521	F	Tor putitora	W	NI	Adult	HCH [total]	Kabul River	downstream	N	Feb
11522	F	Tor putitora	W	NI	Adult	o,p'-DDE	Kabul River	downstream	N	Feb
11523	F	Tor putitora	W	NI	Adult	p,p'-DDE	Kabul River	downstream	N	Feb
11524	F	Tor putitora	W	NI	Adult	o,p'-DDD	Kabul River	downstream	N	Feb
11525	F	Tor putitora	W	NI	Adult	p,p'-DDD	Kabul River	downstream	N	Feb
11526	F	Tor putitora	W	NI	Adult	o,p'-DDT	Kabul River	downstream	N	Feb
11527	F	Tor putitora	W	NI	Adult	p,p'-DDT	Kabul River	downstream	N	Feb
11528	F	Tor putitora	W	NI	Adult	DDTs [total]	Kabul River	downstream	N	Feb
11529	F	Glyptothorax punjabensis	W	NI	Adult	alpha-HCH	Kabul River	downstream	N	Feb
11530	F	Glyptothorax punjabensis	W	NI	Adult	beta-HCH	Kabul River	downstream	N	Feb
11531	F	Glyptothorax punjabensis	W	NI	Adult	Lindane	Kabul River	downstream	N	Feb
11532	F	Glyptothorax punjabensis	W	NI	Adult	Hexachlorocyclopentadiene	Kabul River	downstream	N	Feb
11533	F	Glyptothorax punjabensis	W	NI	Adult	HCH [total]	Kabul River	downstream	N	Feb
11534	F	Glyptothorax punjabensis	W	NI	Adult	o,p'-DDE	Kabul River	downstream	N	Feb
11535	F	Glyptothorax punjabensis	W	NI	Adult	p,p'-DDE	Kabul River	downstream	N	Feb
11536	F	Glyptothorax punjabensis	W	NI	Adult	o,p'-DDD	Kabul River	downstream	N	Feb

Distribution of BSAF records



BSAF Website

- Constructed by ERDC
- Displays BSAF data



BSAF Data

Filters are used to view BSAF data for different species and chemicals. Data will be presented in a table for viewing and/or download. To download select "create excel spreadsheet". Additional supporting information such as full citation will be included in the download.

Alternatively, Press CTRL+A to select the entire table. Next, press CTRL+C to copy. Finally, open an Excel workbook and either Press CTRL+V to paste or right click your mouse and select the paste option. Optionally, you may save the results page as an HTML page and then open from MS Excel. In Internet Explorer save as type should be 'webpage, HTML only', while in Chrome save as type should be 'webpage, complete'.

Note: In an effort to help interpret BSAF numbers additional supporting information is currently being obtained from the literature. Unfortunately, BSAF numbers will not have the same level of supporting information nor do studies report the same level of detail. See the [Structure](#) page for data field information

Basic Search

- or -

- or -

- or -

Environmental Residue Effects Database (ERED)

<https://ered.el.erdc.dren.mil/>

res·i·due

/ˈrezə,d(y)oo/ 

noun

a small amount of something that remains after the main part has gone or been taken or used.

synonyms: remainder, remaining part, rest, remnant(s); [More](#)

Search

Results: 2,120

(from All Databases)

You searched for: TOPIC: (residue effects) ...More

Refine Results

Search within results for...



Databases

Research Domains

- ☐ SCIENCE TECHNOLOGY (1,584)
- ☐ SOCIAL SCIENCES (127)
- ☐ ARTS HUMANITIES (3)

Refine

Research Areas

- ☐ CHEMISTRY (658)
- ☐ BIOCHEMISTRY MOLECULAR BIOLOGY (611)
- ☐ TOXICOLOGY (594)
- ☐ ENVIRONMENTAL SCIENCES ECOLOGY (566)
- ☐ AGRICULTURE (464)

more options / values...

Refine

Document Types

Authors

Search for residue effects data

Sort by: Publication Date – newest to oldest

Page 1 of 212

Select Page



Save to EndNote online

Add to Marked List

Analyze Results

Create Citation Report

(from All Databases)

Usage Count

- 1. **Molecular Dynamics and Docking Studies of Matrix Metalloproteinase-1 Inhibitors**
By: Farrokhnia, Maryam; Mahnam, Karim
IRANIAN JOURNAL OF PHARMACEUTICAL RESEARCH Volume: 10 Issue: 1 Pages: 173-186 Published: WIN 2017
➔ Links View Abstract

- 2. **Nanostructure of Poly(Acrylic Acid) Adsorption Layer on the Surface of Activated Carbon Obtained from Residue After Supercritical Extraction of Hops.**
By: Wisniewska, M; Nosal-Wiercinska, A; Ostolska, I; et al.
Nanoscale research letters Volume: 12 Issue: 1 Pages: 2 Published: 2017-Dec (Epub 2017 Jan 03)
➔ Links Full Text from Publisher View Abstract

- 3. **Determination of hymexazol in 26 foods of plant origin by modified QuEChERS method and liquid chromatography tandem-mass spectrometry.**
By: Jiang, Zejun; Li, Hui; Cao, Xiaolin; et al.
Food chemistry Volume: 228 Pages: 411-419 Published: 2017-Aug-01 (Epub 2017 Feb 08)
➔ Links Full Text from Publisher View Abstract

- 4. **Unraveling the inhibition mechanism of cyanidin-3-sophoroside on polyphenol oxidase and its effect on enzymatic browning of apples.**
By: Hemachandran, Hridya; Anantharaman, Amrita; Mohan, Sankari; et al.
Food chemistry Volume: 227 Pages: 102-110 Published: 2017-Jul-15 (Epub 2017 Jan 18)
➔ Links Full Text from Publisher View Abstract

- 5. **Characterization of Maillard-type lysozyme-galactomannan conjugate having immune-enhancing effects.**
By: Yang, Jae-Eon; Chun, Su-Hyun; Kim, Ha Hyung; et al.
Food chemistry Volume: 227 Pages: 149-157 Published: 2017-Jul-15 (Epub 2017 Jan 17)
➔ Links Full Text from Publisher View Abstract

- 6. **Determination of pesticide residues in globe artichoke leaves and fruits by GC-MS and LC-MS/MS**
Times Cited: 0 (from All Databases)
Usage Count

Welcome to the Bioaccumulation Database

About Biota-Sediment Accum. Factor Environ Residue Effects Test Animals Test Chemicals References

ERED Data Entry

New

Edit

Delete

Save

Cancel

Close

3066

Ref Display: Wang et al Year: 2016 RefDB: ERED link: C:\ERED Papers\201

Author(s): Wang Y, L LV, Y Yu, G Yang, Z Xu, Q Wang, L Cai

Title: Single and joint toxic effects of five selected pesticides on the early life stages of zebrafish (Danio rerio)

Journal: Chemosphere Vol: 170 Pg: 61-67

Type: Journal Reference used? Y Date Modified: 3/20/2017 EPAecotox: No

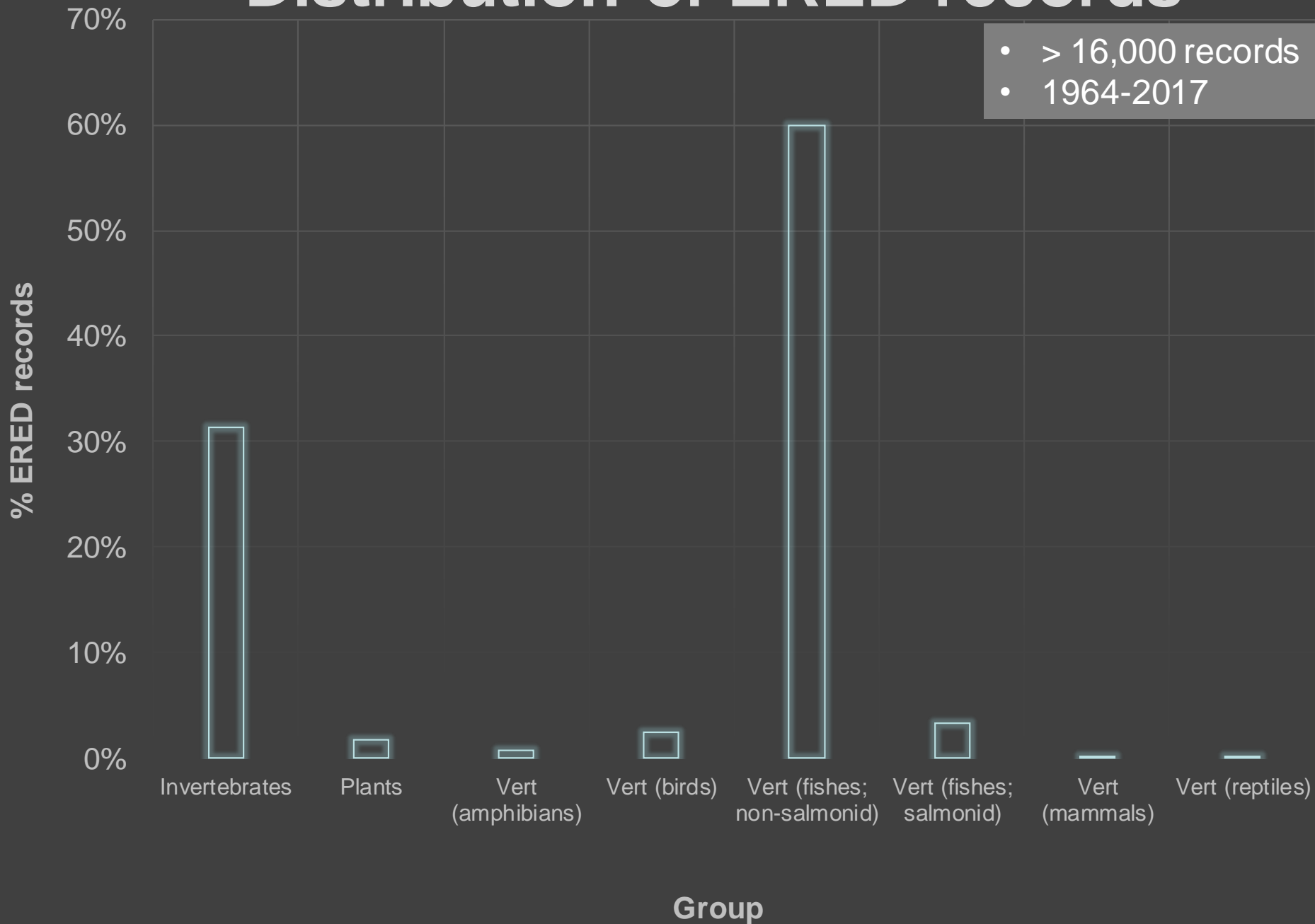
Enter "N" for no. The reference will be saved but not made available for data entry. Hit F5 or refresh to hide this literature.

Add/Edit ERED Data

Lock Spreadsheet

EREI	Study	Analyte	Mix	Spiked	ChemExp	DoseFreq	Exposure	Exp Route	Meas	Exp Conc	units	status
17280	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	45.72	mg/L	Me
17281	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	98.5	mg/L	Me
17282	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	119.7	mg/L	Me
17283	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	5.49	mg/L	Me
17284	Lab	Cyhalothrin	No	Yes	water	1x/24 h	aqueous	water	U	6.77	mg/L	Me
17285	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	26.48	mg/L	Me
17286	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	34.19	mg/L	Me
17287	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	13.03	mg/L	Me
17288	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	1.93	mg/L	Me
17289	Lab	Cyhalothrin	No	Yes	water	1x/24 h	aqueous	water	U	0.066	mg/L	Me
17290	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	1.27	mg/L	Me
17291	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	27.37	mg/L	Me
17292	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	0.39	mg/L	Me
17293	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	0.59	mg/L	Me
17294	Lab	Cyhalothrin	No	Yes	water	1x/24 h	aqueous	water	U	0.66	mg/L	Me
17295	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	0.89	mg/L	Me
17296	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	15.63	mg/L	Me
17297	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	0.28	mg/L	Me
17298	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	0.45	mg/L	Me
17299	Lab	Cyhalothrin	No	Yes	water	1x/24 h	aqueous	water	U	0.38	mg/L	Me
17300	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	1.38	mg/L	Me
17301	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	10.1	mg/L	Me
17302	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	1.85	mg/L	Me
17303	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	1.62	mg/L	Me
17304	Lab	Cyhalothrin	No	Yes	water	1x/24 h	aqueous	water	U	0.005	mg/L	Me
17305	Lab	Phoxim	No	Yes	water	1x/24 h	aqueous	water	U	1.01	mg/L	Me
17306	Lab	Atrazine	No	Yes	water	1x/24 h	aqueous	water	U	6.09	mg/L	Me
17307	Lab	Chlorpyrifos	No	Yes	water	1x/24 h	aqueous	water	U	1.32	mg/L	Me
17308	Lab	Butachlor	No	Yes	water	1x/24 h	aqueous	water	U	0.99	mg/L	Me

Distribution of ERED records





ENVIRONMENTAL RESIDUE-EFFECTS DATABASE (ERED)

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Welcome to ERED

The ERED is a collection of residue-effects data obtained from peer-reviewed literature and reports submitted by U.S. government agencies. The database was developed by researchers at the U.S. Army Engineer Research and Development Center Environmental Laboratory through support provided by the **Dredging Operations Technical Support** program. The ERED data are useful for comparing measured tissue concentrations from a bioaccumulation test - such as those performed to evaluate dredged sediments - to published information that describes the relationship between contaminant tissue concentration and the likelihood of an adverse effect.

Features

Search by species (**Specific Search**)

Search by group of animals and chemicals (**Range Search**)

Browse by references and retrieve data (**References**)

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Invert (insects, crustaceans)	Metals	1064	Click here			
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Invert (insects, crustaceans)	PCBs	113	Click here			
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Addison and Zinck. 1977. Rate of Conversion of 14C-p,p'-DDT to p,p'-DDE by Brook Trout (<i>Salvelinus fontinalis</i>): Absence of Effect of Pretreatment of Fish with Compounds Related to p,p'-DDT. <i>J Fish Res Board Can</i> 34:119-122	7	Click here
Addison et al. 1976. Metabolism of Single and Combined Doses of 14c-Aldrin and 3h-p,p'-DDT by Atlantic Salmon (<i>Salmo salar</i>) Fry. <i>J Fish Res Board Can</i> 33:2073-2076	2	Click here
Addison et al. 1978. Induction of Hepatic mixed-function oxidase (MFO) Enzymes in Trout (<i>Salvelinus fontinalis</i>) by Feeding Aroclor 1254 or 3-Methylcholanthrene. <i>Comp Biochem Phys C</i> 61:323-325	4	Click here
Ahrens et al. 2002. Sensitivity of Juvenile <i>Macoma liliana</i> (Bivalvia) to UV-Photoactivated Fluoranthene Toxicity. <i>Environ Toxicol</i> 17:567-577	4	Click here
Ahsanullah and Williams. 1991. Sublethal Effects and Bioaccumulation of Cadmium, Chromium, Copper and Zinc in the Marine Amphipod <i>Allorchestes compressa</i> . <i>Mar Biol</i> 108:59-65	9	Click here
Aisemberg et al. 2005. Comparative Study on Two Freshwater Invertebrates for Monitoring Environmental Lead Exposure. <i>Toxicology</i> 210:45-53	11	Click here

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Type	Genus Species	desc	life stage	Analyte Name	CAS No	Mix	Conc. Wet (mg/kg)	No. Reps	Exp Route	fraction	Effect	Risk	% effect	trend	Comments	Source
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	ED 177	N/I	N/I	Up regulated EROD	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	IP 706	N/I	N/I	Up regulated AhR expression	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	NOEC	N/I	N/I	GST	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	NOEC	N/I	N/I	catalase	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	NOEC	N/I	N/I	T-GPx	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00487	2	Ingestion	Muscle	Biochemical	NOEC	N/I	N/I	Lipid peroxidation as MDA	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	ED 177	N/I	N/I	Up regulated EROD	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	IP 706	N/I	N/I	Up regulated AhR expression	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	NOEC	N/I	N/I	GST	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	NOEC	N/I	N/I	catalase	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	NOEC	N/I	N/I	T-GPx	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Biochemical	NOEC	N/I	N/I	Lipid peroxidation as MDA	Abalos et al.2008.Chemosphere 73:5305-5310
Lab	Sparus aurata	ray-finned	Juvenile	2,3,7,8-TCDD	1746-01-6	No	0.00783	2	Ingestion	Liver	Cellular	NOEC	N/I	N/I	CYP1A1	Abalos et al.2008.Chemosphere 73:5305-5310

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Questions?