**Toxic exposure mediated via FOOD in BC (I) – BCTOX-RA®**

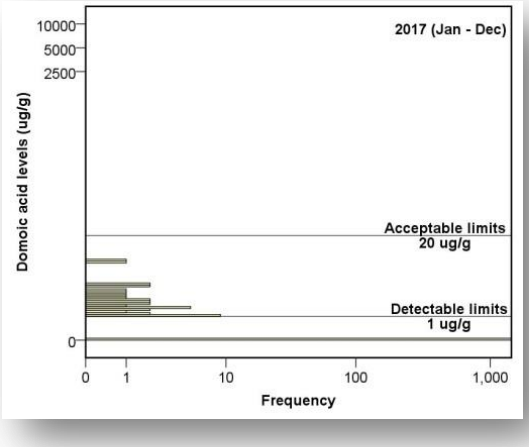
**Marine biotoxins (2017) in BC - Data from CFIA – BCTOX graphs**

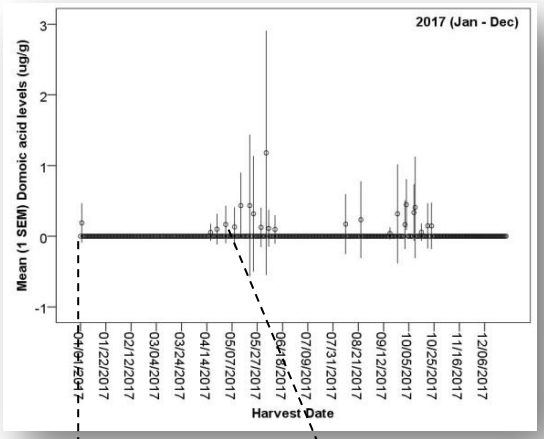
**Frequency** **Mean (1 SEM) concentrations**

# 1- Domoic acid

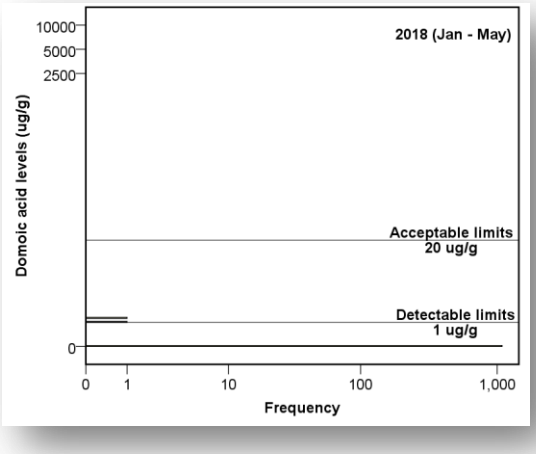
**Domoic acid (ug/g) (Amnesic shellfish poisoning (ASP)) among detected shellfish samples in BC (January to December 2017) (n=2 positive cases out of 1088 samples) [These graphs are prepared to imply the trend, and it should be interpreted with caution]**

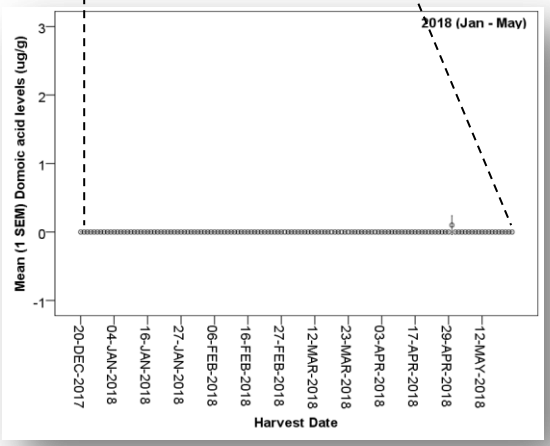
## 2017 (Jan to Dec)




## 2018 (Jan to May)




**Bi weekly marine bio-toxin monitoring in West Coast BC from Jan to May 2018**

- ***Below*** regulatory limits Domoic acid [Amnesic Shellfish Poisoning] are rarely reported. No cases of above regulatory limits were reported. As compared to Jan to May 2017, the values seem to be lower.

**Toxic exposure mediated via FOOD in BC (I) – BCTOX-RA®**

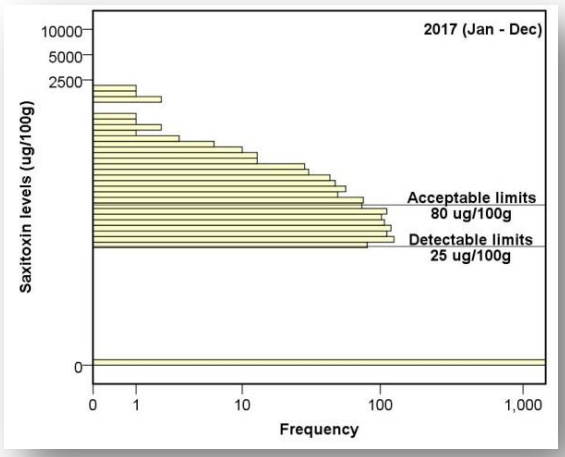
**Marine biotoxins (2017) in BC - Data from CFIA – BCTOX graphs**

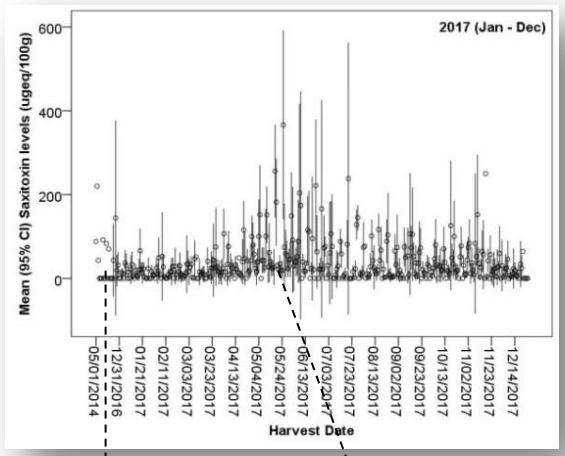
**Frequency** **Mean (1 SEM) concentrations**

# 2- Saxitoxin

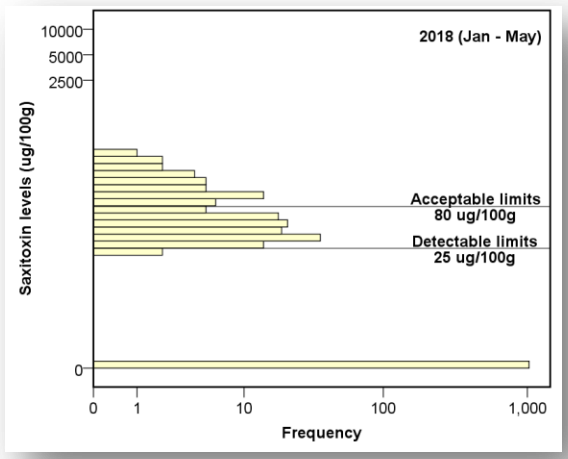
**Saxitoxin (ug/100g) (Paralytic shellfish poisoning (PSP) among detected shellfish samples in BC (January to December 2017) (n=154 detected and 20 above the regulatory limit out of 1181 samples) [These graphs are prepared to imply the trend, and it should be interpreted with caution]**

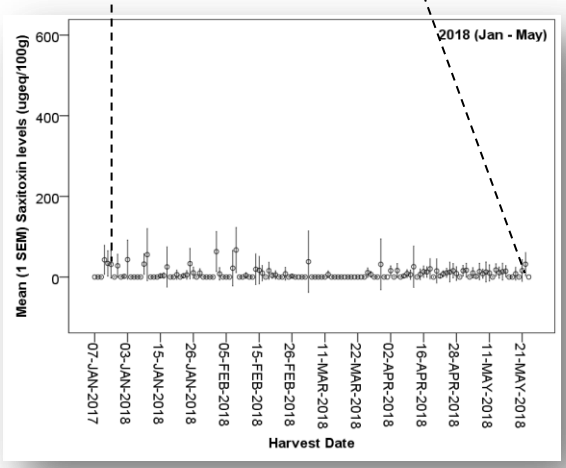
## 2017 (Jan to Dec)




## 2018 (Jan to May)




**Bi weekly marine bio-toxin monitoring in West Coast BC from Jan to May 2018**

✓ ***Above*** regulatory limits of Saxitoxin [Paralytic shellfish poisoning] concentrations were reported in 2018. The extent of the problem seems to be lower than 2017.

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**Toxic exposure mediated via FOOD in BC (I) – BCTOX-RA®**

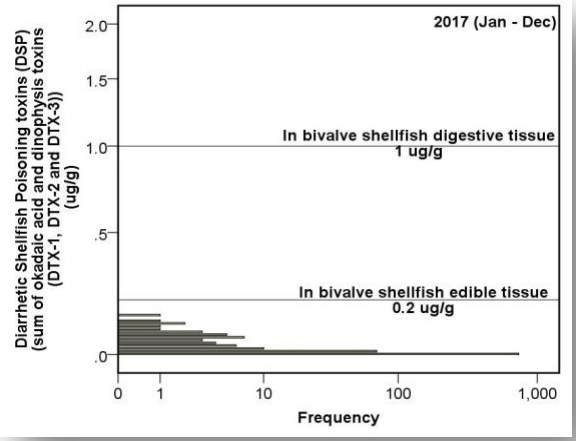
**Marine biotoxins (2017) in BC - Data from CFIA – BCTOX graphs**

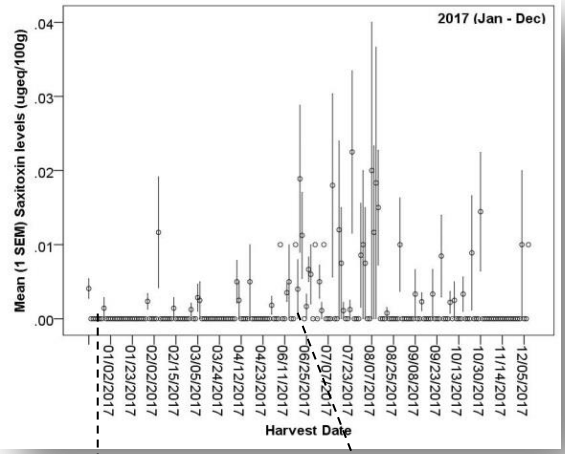
**Frequency** **Mean (1 SEM) concentrations**

# 3- Okadaic acid

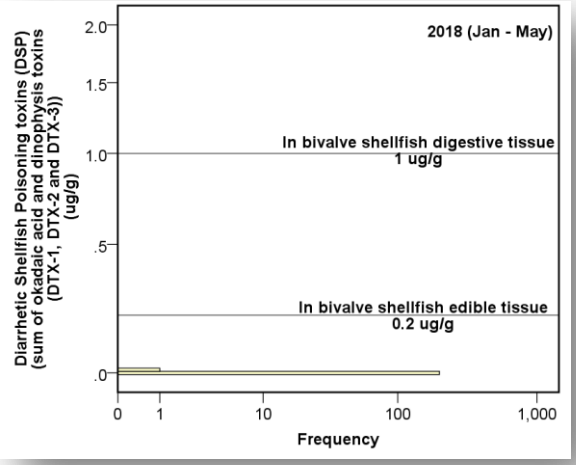
**Okadaic acid (sum of okadaic acid and dinophysis toxins (DTX-1, DTX-2 and DTX-3) (Diarrhetic Shellfish Poisoning toxins (DSP)) among shellfish samples in BC (January to December 2017) (n=114 detected out of 735 sample) [These graphs are prepared to imply the trend, and it should be interpreted with caution]**

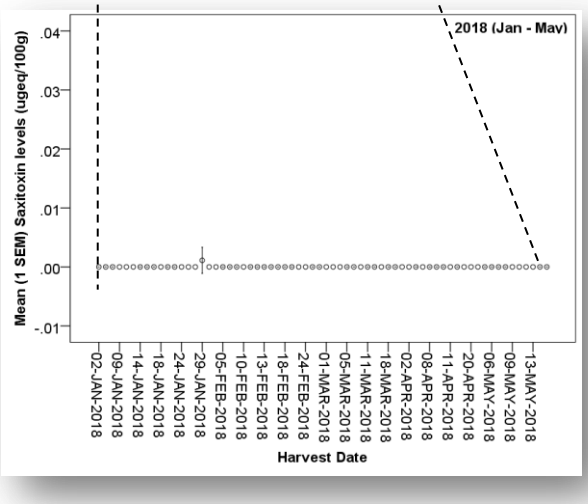
## 2017 (Jan to Dec)




## 2018 (Jan to May)




**Bi weekly marine bio-toxin monitoring in West Coast BC from Jan to May 2018**

✓ ***Below*** regulatory limits of Okadaic acid and dinophysis toxins [Diarrhetic Shellfish Poisoning] were reported a couple of times. The extent is even lower than the last year.

# *Other Marine Miotoxins*

## *Cyanobacterial toxins*

No report of cyanobacterial toxins were detected in media until 29th of May 2018 in BC.

Decision Tree for Drinking Water: Cyanobacterial Toxins – Step Descriptions (No information is available online from BC)

STEP A: STEP A: Initial screening for suspected blooms: Examine the water for one or more of total nitrogen and phosphorus. Check for bloom formation.

STEP B: If yes to any of: nitrogen (N)>658 µg/L; phosphorus (P)> 26µg/L; an N:P ratio < 23; changes in secchi depth; or blooms observed, go to Step C. If no, return to Step A.

STEP C: Sample the raw water. Use a portable field kit to test for the presence of microcystins.

STEP D: If the presence of microcystins is detected (>1.0µg/L ) with a field test kit, go to step E, and alert the health authority of a potential issue. If microcystins are absent, return to step A.

STEP E: Use a portable test kit to test the treated water supply for microcystins.

STEP F: If the portable test kit indicates microcystins are present (>1.0µg/L) in the treated water, send a sample to the lab for confirmation and immediately notify the health authority.

STEP G: If the lab results indicate the seasonal MAC of 1.5µg/L has been exceeded, immediately contact the health authority for consultation and decision making.

## *Azaspiracid and analogues* (No information is available online from BC)

## *Brevetoxin and analogues* (No information is available online from BC)

## *Cyclic imines* (No information is available online from BC)

## *Palytoxin and analogues* (No information is available online from BC)

## *Pectenotoxin* (No information is available online from BC)

## *Tetrodotoxin and analogues* (No information is available online from BC)

## *Yessotoxin and analogues* (No information is available online from BC)