

US EPA ARCHIVE DOCUMENT

SOUTHEAST ALASKA TRIBAL TOXINS



A Partnership to Monitor Harmful Algal
Blooms

Projects and Programs



- Southeast Alaska Tribal Toxins (SEATT)
- Southeast Alaska Regional Ocean Acidification Monitoring (SEAROAM)
- Sitka Tribe of Alaska Environmental Research Lab (STAERL)
- Integrated *Alexandrium* Cyst bed Mapping in Southeast Alaska (IACSEA)



WHY DO WE NEED SEATOR

- Support SE partnered Tribes working on climate change related impacts on the marine environment
- Outreach, community access to data, training
- **UNIFIED CREDIBILITY**



WHY A PARTNERSHIP?



A **Common Concern** about subsistence clam resources

→ No assistance from AK state agencies



STA reached out to SE Tribes



EPA IGAP funds for baseline phytoplankton

→ Create an early warning system



South**E**ast **A**laska **T**ribal **T**oxins

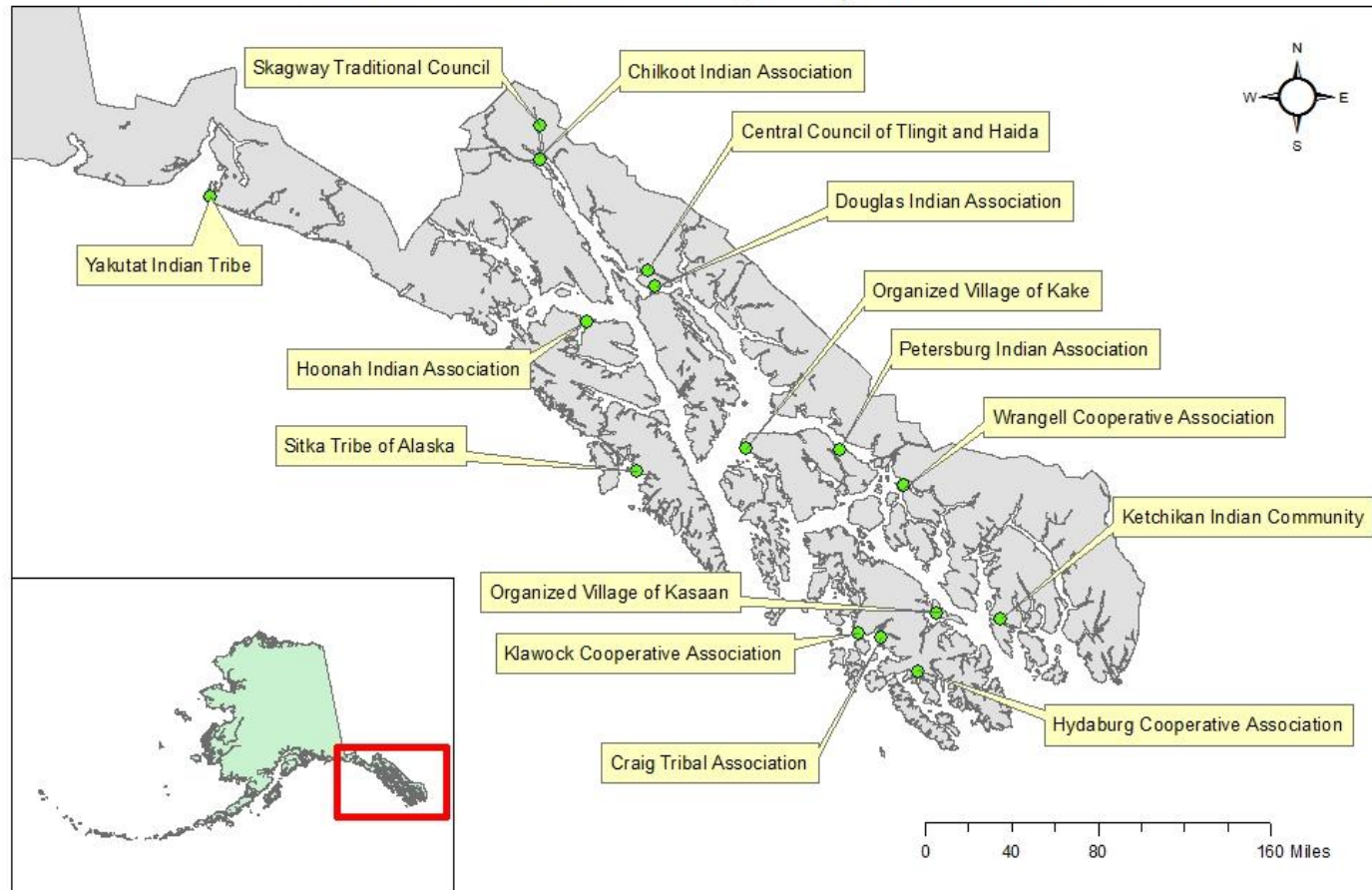
November 2013



SOUTHEAST TRIBAL PARTNERS



Southeast Alaska Tribal Toxins (SEATT) Partner Locations



Who Regulates for PSP and toxins in Alaska?

- Alaska Department of Environmental Conservation follows FDA regulations for all commercially harvested shellfish in Alaska under the National Shellfish Sanitation Program



What about subsistence users?



- Alaska has no long-term **SUBSISTENCE OR RECREATIONAL** regulatory testing.



What does monitoring look like?





Equipment and Training

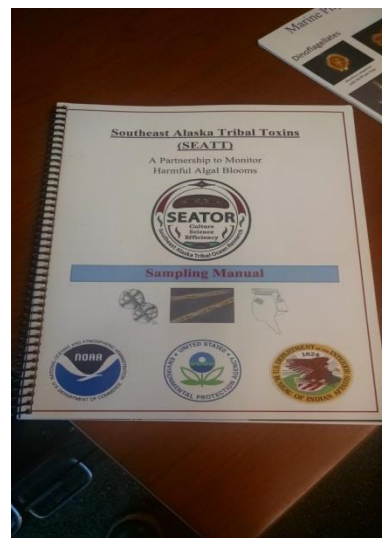
Equipment

- Digital Microscope with Camera
- Refractometer and Thermometer
- Phytoplankton Net
- Filtering apparatus
- Identification tools

Training

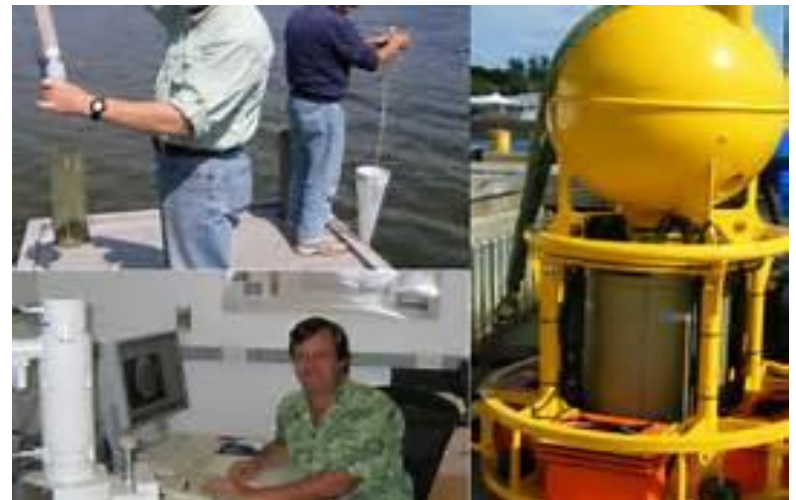
- Workshops in Sitka
- Sampling Manual
- Videos
- Site Visits

Updates to www.seator.org



Where does all the data go?

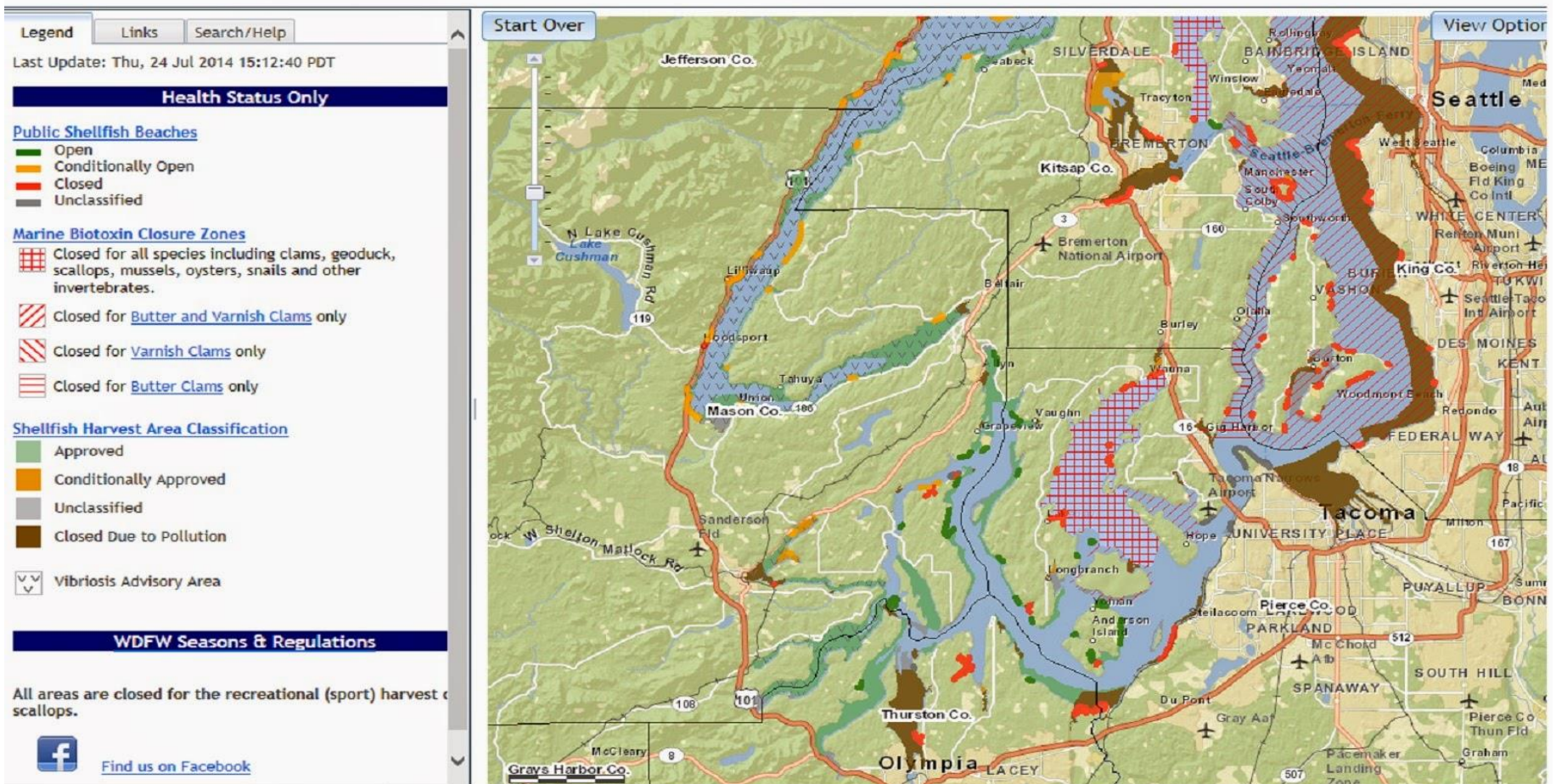
- SoundToxin Database and Phytoplankton Monitoring Network (NOAA)
 - National database for all monitoring groups
 - Used by researchers, shellfish growers, and resource managers for early warning system



Interactive Mapping Tool



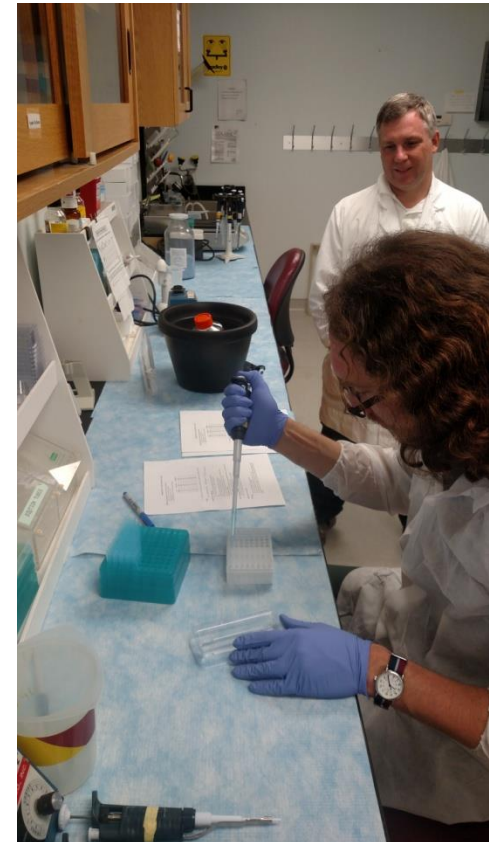
Washington State Department of Health Shellfish Safety Information



Sitka Tribe of Alaska Environmental Regulatory Lab (STAERL)



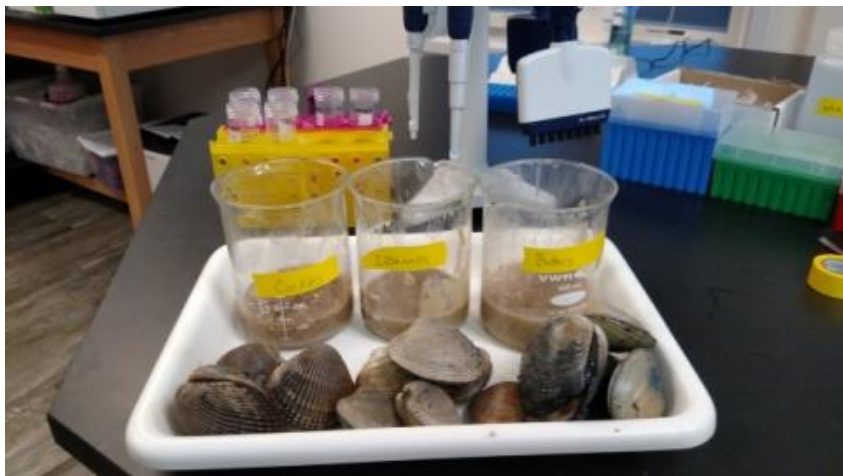
- Developed to support SE Tribes (SEATT) with shellfish toxin analysis.
- Tribes can use STAERL to develop subsistence shellfish management plans



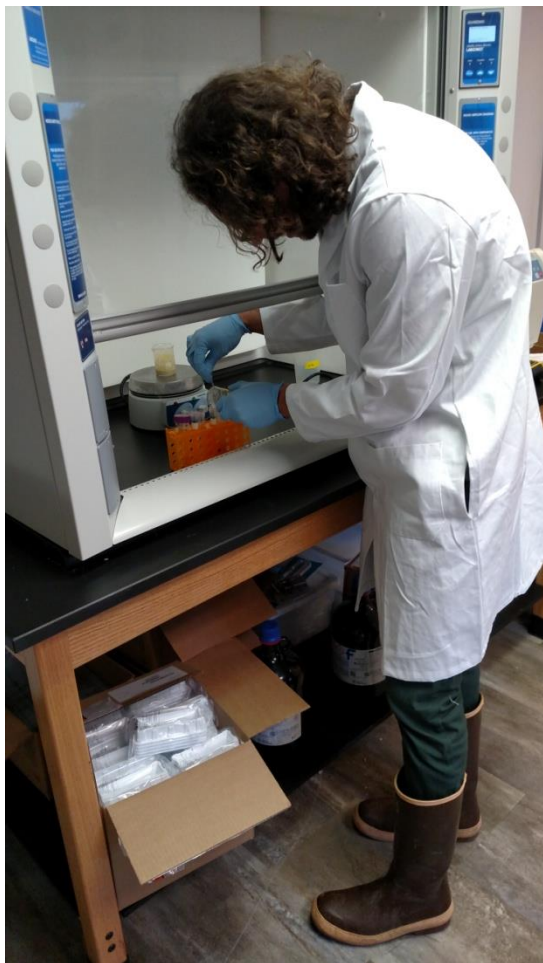
RBA: receptor binding assay



- Provide **STX** data (OMA 2011.27)
- Lower detection limit ($6.4 \mu\text{g}/100\text{g}$)
- High throughput
 - Screen 23 samples/plate
- Research other species to amend AOAC



ELISA: enzymed linked imunoabsorbant assay



Domoic Acid
(OMA 2006.02)



Toxic Shellfish 101

How plankton can ruin your dinner plans

Contact us for testing information and protocols. Call 907-747-7356 or email seator@sitkatriben-snn.gov. Find us on the web at seator.org.



FUNDING

- **SEATT:** EPA IGAP -\$20K/Tribe/year (~\$250/yr)
- **SEATT:** EPA IGAP workshops-\$150K (STA)
- **SEAROAM:** BIA Climate Change Program-\$210K (STA)
- **SEATOR** site/SEATT training: BIA Climate Change Program-\$50K (STA)
- **STAERL:** ANA Environmental Regulatory Enhancement Program-\$580K (STA)
- ***Integrated Shellfish Map:** BLaST program-\$200K (pending)

\$1.5 million as of FY16



Other Partners



- NOAA –Northwest Fisheries Science Center and Charleston Marine Biotoxin Program NOS/PMN
- University of Alaska Fairbanks School of Fisheries and Ocean Science
- Southeast Alaska Regional Dive Fisheries Association (SARDFA)
- Washington State Department of Health Marine Biotoxin Program
- Alaska Department of Environmental Conservation (EHL)

Questions or Comments?



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