



**Department of
Environmental
Conservation**

Welcome!

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Lake Monitoring and Assessment Section

Bureau of Water Assessment and Management, Division of Water

May 4, 2019 – NYSFOLA Conference – CSLAP Training

What we will be doing today...

Morning – Classroom 9:00AM

- Brief introduction to CSLAP and what we (you) accomplish through the program
- “Scott Kishbaugh – The Extended Final Tour, Additional Dates” – 32yrs in the making
- “The Other Mueller Report” – i.e. how Nancy keeps the program running smoothly
- “May the Fourth be with Tony Prestigiacomo and all those bottles (misc.)”
- “HABs that say Ni (or NY)” – Rebecca Gorney and the HABS of NY (NYHABS)

Afternoon – Hands On Training 2:00PM

- Online data entry
- Sample processing
- Collecting field data



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What is a citizen scientist?

New term – old concept

- First use describing efforts of 225 volunteers that collected rain samples for the Audubon Society in 1989 in an acid-rain awareness campaign
- Added to Oxford English Dictionary 2014
- Top fields to use citizen scientists include biology, ecology and conservation (Kullenberg and Kasperowski, 2016)



Alan Irwin (1995)

- “...scientific citizenship... opening up science and science policy processes to the public...”
- Science responsive to citizens and citizens produce reliable science



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- Top fields to use citizen science: ecology and conservation (Kullenberg and Kullenberg 2000)

So what is
CSLAP??



Alan Irwin (1995)

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C (Citizens)

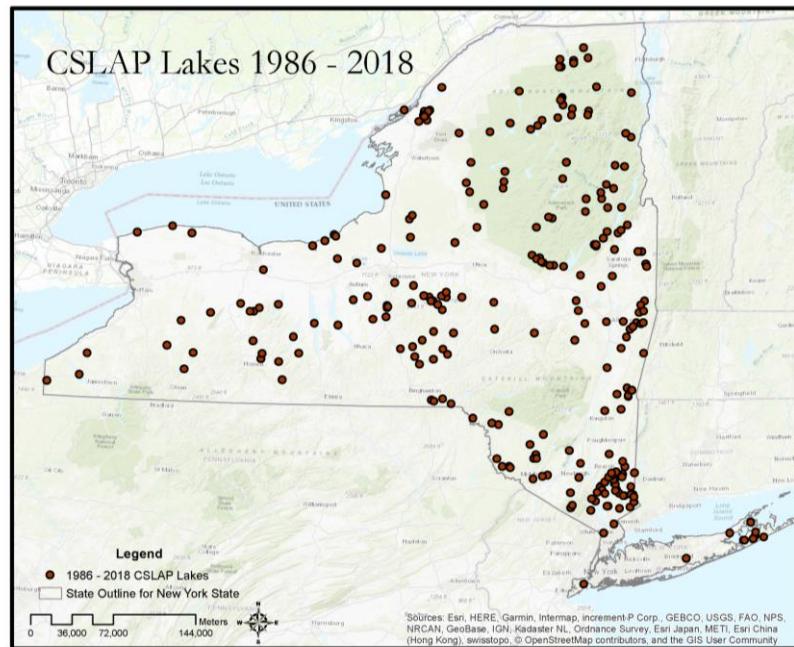
- Citizens are the most critical, crucial, central part of the program
- They do the work, sun or slightly less sun
 - Please don't go out in really bad weather
- They know their lakes (and can tell us when they're misbehaving... the lakes, not the citizens)
- They number nearly 2000



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S (Statewide)

- Just west of Montauk to east of Erie
- Great Lakes to tiny, little (also great) ponds
 - 42,814 ac to 1 ac
- 75 of them in the Lower Hudson River basin
- Gaps in some parts of the state



L (Lake)



- And pond
- And reservoir
- And “flow(age)” and “landing”
- Public and private
- Good and less good and not so good
- From 3ft to 650ft in depth
- More than 270 of them, currently
~150



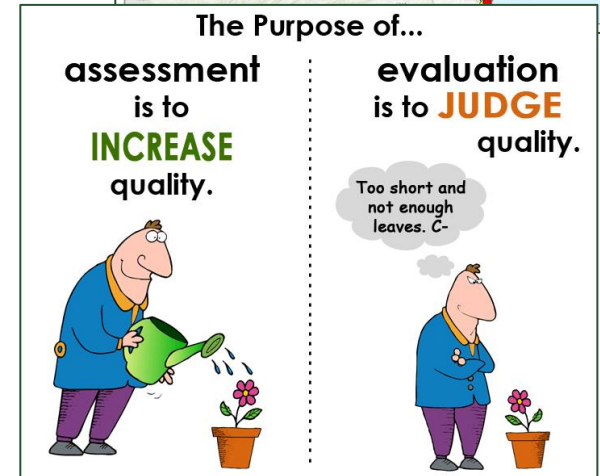
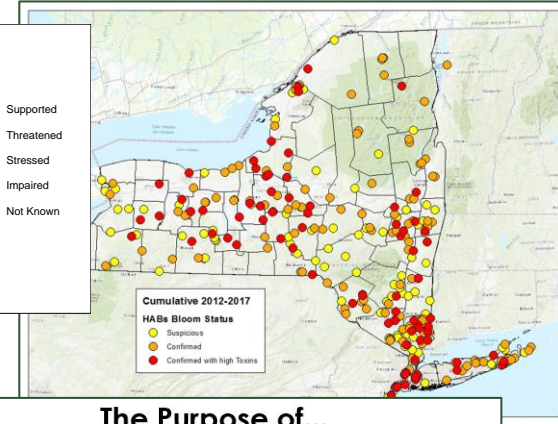
A (Assessment)

It's what we do....

- How DEC (and NYSFOLA and lake communities) determine and track the condition of the lake
- And how DEC assigns resource priorities and makes permitting decisions
- Primary data for NYS HABs notification program
- Data used to inform assessments of the Waterbody Inventory/Priority Waterbodies List and for small lakes TMDL modeling
- Lake perception data used for nutrient criteria development

Lake Use				
Potable Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not applicable
Swimming	◆	■	■	Algae levels
Boating / Fishing	●	▲	●	Invasive plants
Aquatic Life	●	●	◆	High pH
Aesthetics	◆	◆	▲	Algae blooms
Fish Consumption	<input type="checkbox"/>	▲	▲	Algae blooms
	PWL	Average Year	2014	Primary issue

- Supported
- ▲ Threatened
- ◆ Stressed
- Impaired
- ☐ Not Known



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P (Program)



“Program”:

- organized
- coordinated
- sustained
- funded
- integrated
- (paperwork)
- (quality control)
- (standardized)
- (training)

CSLAP and Objectives

Volunteer lake monitoring/education program

Managed by NYSDEC and NYSFOLA

Initiated 1986 and mandated by ECL (17-0305)

Consistent monitoring approach

- Trained volunteers, use approved methods (standard operating procedures)
- Certified labs analyze the water samples (NYS ELAP certified)
- Data interpreted by professionals



Sampling Frequency

All lakes sample 8x per year

- Biweekly from June to September

Sites

- Most lakes single site, deepest point in lake
- Shallow only or shallow and deep (not always the bottom!)

Ask lakes participate for minimum of five years, not required

- Some lakes have been sampling for duration of program
- Some alternate years
- Previous program constraints required rotating participants



Parameters

Laboratory Analyses

Epilimnion Samples

- Calcium
- Chloride
- Chlorophyll a
- Specific Conductivity
- Color
- pH
- Total and dissolved nutrients
- NO_x
- Ammonia

Hypolimnion Samples

- Total and dissolved nutrients
- Ammonia

Field Data

- Water Temperature
- Air Temperature
- Water Clarity
- Lake Perception Survey
- Harmful Algal Bloom Surveillance
- Limited Plant Surveys



Expectations of NYSDEC

- ECL 17-0305 (1988) mandates program
- Provide overall program direction
- Subsidize most of program costs
- Provide program coordinator
- Develop QAPP/QAMP, SOPs, sampling protocols, analytical test patterns
- Coordinate laboratory contracts
- Conduct volunteer training
- Analyze data, writes summary reports
- Communicate results (EPA, agencies, lake associations, municipalities, HAB notification...)



Expectations of NYSFOLA (Nancy and committee)

- Day-to-day operation of program
- Prepare sampling kits
- Coordinate sample receipt and cooler transmission with laboratory
- Handle most communication with volunteers
- Select candidate lakes
- Conduct volunteer training
- Enter field data
- Provide/maintain newsletter, annual conference, web page for program communication, committee w/ DEC
- Provide upfront costs and outside push red tape delays program



New York State Federation
of Lake Associations



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Expectations of Citizen Scientists

- Member of NYSFOLA
- Participate in group or individual training
- Follow CSLAP sampling protocol
- Collect and process water and HAB samples
- Collect field and lake perception measurements
- Send samples to laboratory
- **Maintain equipment and supplies**
- Communicate results to lake association
- Provide lake management information to DEC/NYSFOLA
- Provide feedback to DEC/NYSFOLA



Expectations of the Lab

Upstate Freshwater Institute

- Receive and return all coolers
- Troubleshoot sample issues
- Transmit data/info to NYSFOLA/DEC
- Analyze water chemistry samples
- Analyze HAB samples (algal toxins)
- Create sampling kits (with NYSFOLA)
- Provide assistance in analyzing results
- Transmit HABs samples to ESF
- Way more stuff



SUNY ESF

- Receive HAB samples from UFI
- Analyze HAB samples
- Run and report algal toxin results
- Provides interpretive information about HAB results



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CSLAP Program Timeline

February: Deadline for CSLAP participation application

March-May: Equipment/supplies ordering, site selection, printing, labeling, packing, shipping, etc.

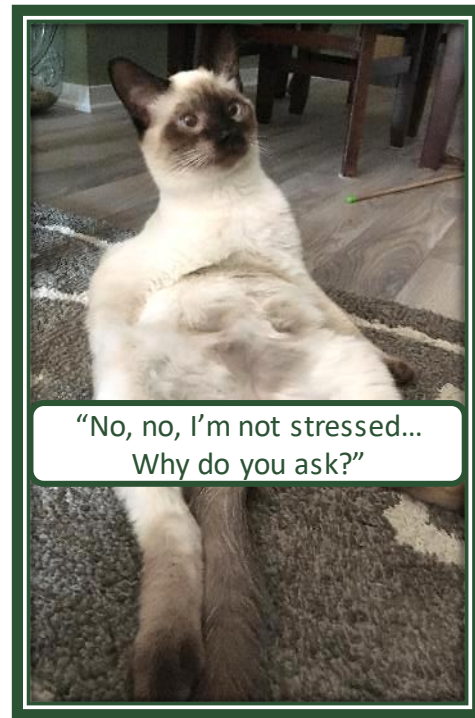
May/June: Conference and trainings

June-September/October: Sampling, lab analyses, intern site visits, replenishing supplies, data entry

December/January: Data transmission from lab

January/February: Data QA, finalize dataset

March-April(May): Report generation and transmittal



Run down of 2018...

- 152 participating lakes
- 172 sampling sites
- 172 summary reports
- 2,344 samples
- 10,000s individual sample results
- 594 session reports (44%) entered by lakes into online data system
- 1 retired DEC CSLAP Director
- 1 hired DEC CSLAP Coordinator
- 1 hired NYSFOLA Assistant Program Manager
- Stay tuned for 2019 updates!

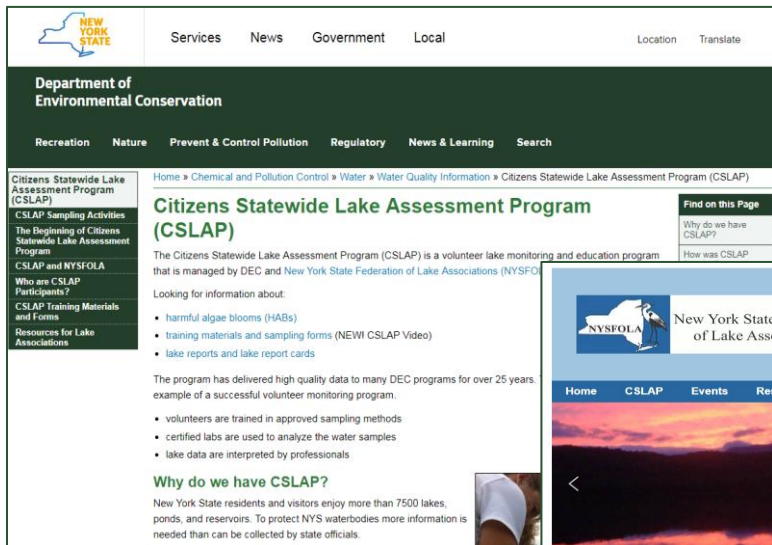


What's new for 2019?

- Attempt to reduce volunteer workload and potential for burnout
 - Bulk chemistry bottles (1L)
 - Condensed and/or reorganized data sheets (sampling record, shoreline form)
 - Created HAB photo reference sheet
- Coordinated sampling with satellite flyover dates when possible
 - Calendar in first cooler
- HABs sampling procedure and bottles
 - ELAP, ELISA, and glass – open water and shoreline
 - Larger bloom collection bottle, split into amber glass and plastic bottle
- HABs notification system – weekly updates to webpage, interpreted results during season and total results in annual report



For more information:



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Home » Chemical and Pollution Control » Water » Water Quality Information » Citizens Statewide Lake Assessment Program (CSLAP)

Citizens Statewide Lake Assessment Program (CSLAP)

The Citizens Statewide Lake Assessment Program (CSLAP) is a volunteer lake monitoring and education program that is managed by DEC and New York State Federation of Lake Associations (NYSFOLA).

Looking for information about:

- harmful algae blooms (HABs)
- training materials and sampling forms (NEW! CSLAP Video)
- lake reports and lake report cards

The program has delivered high quality data to many DEC programs for over 25 years, example of a successful volunteer monitoring program.

- volunteers are trained in approved sampling methods
- certified labs are used to analyze the water samples
- lake data are interpreted by professionals

Why do we have CSLAP?

New York State residents and visitors enjoy more than 7500 lakes, ponds, and reservoirs. To protect NYS waterbodies more information is needed than can be collected by state officials.

CSLAP Sampling Activities

The Beginning of Citizens Statewide Lake Assessment Program

CSLAP and NYSFOLA

Who are CSLAP Participants?

CSLAP Training Materials and Forms

Resources for Lake Associations

Find on this Page

Why do we have CSLAP?

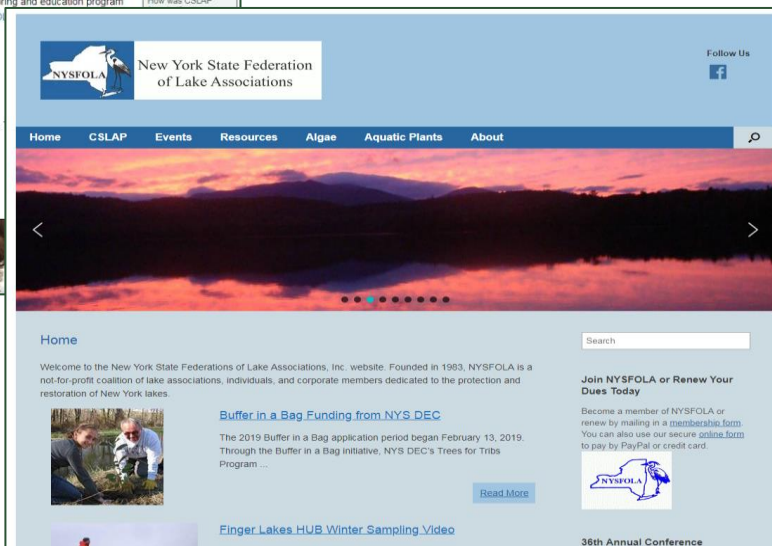
How was CSLAP

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NYSFOLA New York State Federation of Lake Associations

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Welcome to the New York State Federations of Lake Associations, Inc. website. Founded in 1963, NYSFOLA is a not-for-profit coalition of lake associations, individuals, and corporate members dedicated to the protection and restoration of New York lakes.

Join NYSFOLA or Renew Your Dues Today

Become a member of NYSFOLA or renew by mailing in a membership form. You can also use our secure online form to pay by PayPal or credit card.

Buffer in a Bag Funding from NYS DEC

The 2019 Buffer in a Bag application period began February 13, 2019. Through the Buffer in a Bag initiative, NYS DEC's Trees for Tribs Program...

Finger Lakes HUB Winter Sampling Video

36th Annual Conference



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Introduce and give a big thank you to this guy!

