



# Summit 2002:

Explore the Diversity of the Lake Champlain Basin -Linking Students to Their Watershed

# **AGENDA & REGISTRATION**



May 15, 2002 Shelburne Farms, Vermont

Hosted by the Champlain Basin Education Initiative: Adirondack Visitor Interpretive Center ~ Audubon Vermont The Center for Lake Champlain ~ Lake Champlain Basin Program ~ Lake Champlain Committee National Wildlife Federation ~ Shelburne Farms ~ Vermont Project WET **Don't Miss Summit 2002!** Join the Champlain Basin Education Initiative (CBEI) partners, dynamic classroom teachers, and local experts to explore a wide array of workshops in three areas:





Humans and the Landscape

**Biodiversity—Aquatic and Terrestrial** 



Current Events and Ecosystem Research

Mix and match workshops from all areas. Field trips, hands on activities, and lively presentations will fill up early, so **register today!** 

# Share your experience... bring a colleague or community member.

# AGENDA - Wednesday, May 15th 2002

# SUMMIT 2002: Explore the Diversity of the Lake Champlain Basin - *Linking Students to Their Watershed*

8:00 - 8:30 a.m.	Coffee, Bagels and Registration		
8:15 - 8:45 a.m.	Music by Buddy Dubay Musician and Educator from the Poker Hill School in Underhill, VT		
8:45 - 9:00 a.m.	Welcome and Introductions Colleen Hickey, Lake Champlain Basin Program		
9:00 - 10:00 a.m.	Keynote: "Patterns and Changes: Exploring the Cultural History and Biological Diversity of the Lake Champlain Watershed" Dr. Mary Watzin, Director, Rubenstein Ecosystem Science Lab, University of Vermont and Art Cohn, Executive Director, Lake Champlain Maritime Museum and Managing Director of the Maritime Research Institute		
10:00 - 11:30 a.m.	Choice of Session A		
11:40 - 1:00 p.m.	Lunch, Amazing Resource Fair & Door Prizes		
1:00 - 2:30 p.m. 2:30 - 4:00 p.m.	Choice of Session B (1 ½ hrs) Choice of Session C (1 ½ hrs)		
- OR -			
1:00 - 4:00 p.m.	Choice of Session D (3 hrs)		
4:00 - 4:15 p.m.	Certificates, Door Prizes and Evaluations		
	THE LAKE CHAMPLAIN BASIN		

# Summit 2002 Workshops

# Session A: 10:00 - 11:30 a.m.



# Humans and the Landscape

#### A1 Workshop: Marks on the Landscape: 250 Years of Change on the Fort Ticonderoga Peninsula

Using the Fort Ticonderoga peninsula as a case study, learn about the diverse ways humans have interacted with the Champlain Basin's landscape over the past 250 years. Discover how historic documents and images can be used to teach about changing land-use patterns as the needs of inhabitants evolve from military survival to agriculture, tourism and historic preservation. These skills in "reading" historic sources to deduce original land uses can be easily adapted to reading any landscape.

**Suitable for Grades:** 5-8

Presenters: Richard Strum and Ellyn Mary Farrar, Fort Ticonderoga

# **Biodiversity - Aquatic and Terrestrial**

#### **A2 Workshop:** *What's in the Net?*

After quickly reviewing lake dynamics and the food web, you'll use a seine net to catch fish in the shallows of Lake Champlain, and learn to identify them using a dichotomous fish key. Participants will also net plankton and examine both zooplankton and phytoplankton under field microscopes.

Suitable for Grades: 5-12

**Presenter:** Matthew Witten, Lake Champlain Maritime Museum

#### A3 Workshop: Following Mammals' Footsteps

Teaching tracking to students doesn't have to be complicated. Learn how to teach students simple practices for identifying animals in their geographic area. Come prepared for "foots-on" activities. Great take-home materials. Suitable for Grades: 4-8, adaptable

Presenter: Mike Brennan, Adirondack Park Visitor Interpretive Centers



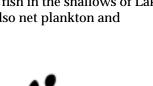
# **Current Events and Ecosystem Research**

#### A4 Workshop: We've Built Ourselves Into This Mess, Now How Do We Get Out? Managing Stormwater Pollution

Rain and melting snow carries pollutants to Lake Champlain through nearby streams. Who on the water's edge might be affected by this stormwater? Explore the ecological, legal and social challenges posed by stormwater pollution. Activities will engage students in critical thinking about ways to minimize stormwater pollution impacts. Suitable for Grades: 5-12

Presenter: Mike Winslow, Lake Champlain Committee







**BOBCAT TRACKS** 

- And More! EVERYONE will take home a

**Great Door Prizes!** 

- USGS Watershed Packets

- US EPA Watershed Puzzles

- National Wildlife Magazines

YOU COULD WIN...

- Maps

new Lake Champlain Basin Atlas CD ROM!

# Session B: 1:00 - 2:30 p.m.



### Humans and the Landscape

#### B1 Workshop: Hook, Line and Sinker

Hunting and fishing are an integral part of the region's cultural heritage and represent a powerful cultural model for understanding and interacting with the natural environment. Using our new, *Hook, Line and Sinker* fishing curriculum we'll demonstrate how teachers can use fishing as a spring board for exploring cultural heritage and building environmental awareness.

Suitable for Grades: 5-12

Presenters: Gregory Sharrow and Helen Freismuth, Vermont Folklife Center

# Biodiversity – Aquatic and Terrestrial

# **B2 Workshop:** Using Aquatic Macro-Invertebrates to Test One of Ecology's Few Capuing Laws: "The Species Area Polationship"

#### Few Genuine Laws: "The Species-Area Relationship"

Explore aquatic macro-invertebrates while testing an important ecological principle. After recovering macroinvertebrates from underneath Lake Champlain's rocks, you'll estimate the surface area of each rock, and sort and count the macroinvertbrates. Plot the data, test the species-area relationship and ask: do larger rocks support a more biologically diverse community? A take home preserved collection of Lake Champlain shoreline accessible invertebrates will be available upon request!

Suitable for Grades: K-12

Presenter: Declan McCabe, St. Michael's College

# Current Events and Ecosystem Research

# **B3 Workshop:** *Catch the Wave: Studying Water Using the Team Approach*

Practical ideas, simple tests, basic investigations of water quality issues and a comprehensive student monitoring program. Interactive and discipline specific activities provided. Some of this team's best student work will be demonstrated! Bring your raincoats and waterproof pens!

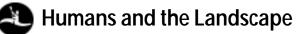
**Suitable for Grades:** 5-8

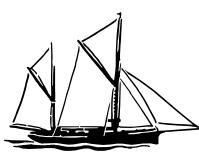
**Presenters:** Xstream team teachers Gary LaShure, Al Fletcher, Monica Kelley and Amy Tillman, Missisquoi Valley Union Middle School and their students

# Don't Miss the Resource Fair!

Free materials from all the CBEI partners, Lake Champlain Maritime Museum, Sea Grant, and more. The Flying Pig Bookstore will be there with lots of books and teacher discounts.

# Session C: 2:30 - 4:00 p.m.





#### C1 Workshop: Lake Sailor: Commerce on Lake Champlain

Experience the difficulties sailors faced making a living on Lake Champlain in the 1800s. With changing wind and weather, will your crew make a profit or declare bankruptcy? Historical overview with simulated activity. **Suitable for Grades** 4-12

Presenters: Eric Tichonuk and Matt Davis, Lake Champlain Maritime Museum



STONE FLY

(session C: 1:00 - 2:30 p.m., continued)



### **Biodiversity – Aquatic and Terrestrial**

#### C2 Workshop: Engaging Amphibians

Twenty-three species of salamanders and frogs live in Vermont. Learn how to incorporate the study of life cycles, habitat, seasons, diversity, and stewardship into your investigations with students. Visit a pond and woodland, listen for frogs, identify frogs and salamanders, and look for the amphibians in the different stages of their life cycle.

Suitable for Grades: K-8

Presenter: Tre McCarney, Shelburne Farms



### Current Events and Ecosystem Research

#### C3 Workshop: Spatial Tools for Student Field Investigations

Use maps with grid overlays to support and frame student field investigations. Participants look at student examples of mapping projects that have utilized spatial tools and then head outside to work directly with compasses, Global Positioning System (GPS) units and field maps to perform a mini-resource inventory on the grounds of Shelburne Farms.

#### Suitable for Grades: 5-12

Presenter: Erin Flather, Vermont Institute of Natural Science and the Orton Family Foundation

# Session D: 1:00 - 4:00 p.m.

# Biodiversity - Aquatic and Terrestrial

#### D1 Workshop: Zones and Ecotones

Explore how water and woods overlap, interact and provide important transitional zones for flora and fauna. Gain a general understanding of plants and animals that inhabit the places in between woodland and wetland. Activities will include both indoor and outdoor lessons focusing on adaptations, exploration

and data collection and sampling. **Suitable for Grades:** 5-12

Presenter: Bridget Butler, Audubon Vermont

# D Current Events and Ecosystem Research

#### **D2 Workshop:** *Dipping Our Toes into Spring Wildflowers*

Complete a trip to Shelburne Pond (just 5 minutes away) to see a premier display of spring ephemeral wildflowers. Explore how - by simply using a field guide - one can identify flowers of all seasons, and how journals and coloring sheets can "bring" the flowers home. Activities will also underscore the importance of leaving woodland flowers in their natural habitat.

Suitable for Grades: K-12

Presenter: Alicia Daniel, Field Naturalist

#### D3 Workshop: Changing Habitats - Aquatic Nuisance Species

Get certified in the Project WET program while studying the impacts of aquatic nuisance species on the Lake Champlain Basin. Investigate how zebra mussels, Eurasian watermilfoil and water chestnut are transforming the benthic (bottom) habitats, expanding their turf, and impacting native plant and animal populations. Complete a hands-on examination of these species. Classroom activities from Project WET, Water Education for Teachers, will compliment this workshop. Participants will receive a Project WET Curriculum and Activity Guide. **Suitable for Grades:** 7-12

**Presenters:** Dr. Ellen Marsden, University of Vermont, and Mike Hauser and Amy Picotte, Vermont Department of Environmental Conservation

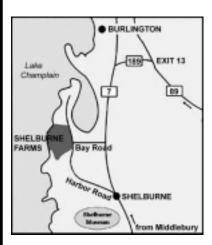




# **Directions to Shelburne Farms**

### From New York...

Following signs from the Northway (I-87), proceed to the Champlain Bridge. Once in Vermont, follow Route 17 to Route 22A. Turn left (north) on Route 22A. Follow 22A to Route 7. Turn left (north) on Route 7 to Shelburne, VT. OR, take the Essex-



Charlotte ferry and follow Route 7 (north) to Shelburne. See map for continued directions.

# From Southern Vermont...

Follow Route 4 to Rutland and turn right (north) onto Route 7 to Shelburne. See map for continued directions.

## From Northern Vermont...

From I-89, exit at Shelburne Road/ Route 7. Turn left (south) onto Route 7 and to Shelburne.

The Summit will be held at the Coach Barn - follow CBEI signs when you reach the Farm. Shelburne Farms can be reached at (802) 985-8686.

# What is CBEI?

Established in 1992, the Champlain Basin Education Initiative (CBEI) is a consortium of New York, Vermont and Quebec organizations dedicated to helping educators learn and teach about Lake Champlain Basin issues.

About 470 educators have participated in our one-day forums or weeklong institutes.

Contact the LCBP or one of the organizations listed on the cover of this agenda for more information.

# One More Note...

The Lake Champlain Basin Program (LCBP) is proud to sponsor this workshop. CBEI is committed to enriching and supporting education about the Lake Champlain Basin in many ways. We hope that this second biennial Summit will enhance your current work and inspire new directions. Aside from the workshops, where an interactive setting will encourage reflection and sharing of your own practice, the schedule allows time to catch up with colleagues and gather resources. **Sharing our knowledge and experience is key!** 

A limited number of scholarships are available. Contact the LCBP for details.

# Mail the Registration Form by May 3<sup>rd</sup> to:

Lake Champlain Basin Program P.O. Box 204 54 West Shore Road Grand Isle, Vermont 05458

### **Questions?**

Call Colleen Hickey at (800) 468-5227 or (802) 372-3213 or email: chickey@lcbp.org



Lake Champlain Basin Program

# **Registration Form**

The registration deadline is May3<sup>rd</sup>. The fee is \$25, which includes the workshops, a resource fair, materials, lunch, and snacks. Note: If you are planning to attend, but need to wait for a check to be cut by your school, please register today by faxing this form to the Lake Champlain Basin Program at (802) 372-3213. Then, send in your payment by May 3rd Participants will be registered on a first come, first served basis. Make check payable to NEIWPCC. (Students may register for \$20.00).

Name:			
School:		Grade Level:	
School Mailing Address:			
Home Address:			Zip:
Daytime Telephone:			
Email (optional):			
Are you attending as part of a team? Y	'ES NO		
Do you currently teach about the Lake	Champlain Basi	n? If so, give us a hint a	bout the content.
Are there specific resources that you we	ould like to see a	at the Resource Fair?	
I would like a vegetarian lunch. YES	NO		
Please choose the workshops y	ou would lik	te to attend:	
Morning - List your 1 <sup>st</sup> and 2 <sup>nd</sup> choice fi SESSION A: 10:00 – 11:30 a.m.	rom A:		
Choose from: A1 A2 A3 A4	1 <sup>st</sup> Choice:	2 <sup>nd</sup> Choice:	_
Afternoon - List either two 1 <sup>1/2</sup> -hour se SESSION B: 1:00 – 2:30 p.m.	essions from B ar	nd C, <u>OR</u> list one 3-hour	session from D.
Choose from: B1 B2 B3	1 <sup>st</sup> Choice:	2 <sup>nd</sup> Choice:	-
SESSION C: 2:30 – 4:00 p.m.			
Choose from: C1 C2 C3	1 <sup>st</sup> Choice:	2 <sup>nd</sup> Choice:	-
- OR -			
SESSION D: 1:00 – 4:00 p.m.			
Choose from: D1 D2 D3	1 <sup>st</sup> Choice:	2 <sup>nd</sup> Choice:	-
<b>Return or FAX this form by May 3<sup>rd</sup> to</b> Lake Champlain Basin Program PO Box 204, 54 West Shore Road Grand Isle, VT 05458	<b>D:</b>		
FAX: (802) 372-3233 PHONE: (800) 468-52	27 or (802) 372-3213	3	
Make Check for \$25.00 Payable to NE	IWPCC (Studer	nts may register for S20.	00)





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