



## Ducks Unlimited Canada



# Nova Scotia Adopt-a-Class Field Trip Program 2001 - 2003

## Final Report



### 1.0 Project Goal and Objectives

#### Goal:

To register 80 NS grade 4 classes in the Ducks Unlimited Canada (DUC) Adopt-a-Class (AAC) wetland education program by the end of the 2002-03 school year and offer these classes hands-on wetland field trip opportunities to enhance the learning experience of this wetland education program.

#### Objectives:

1. Register a total of 80 N.S. grade 4 classes in the DUC Adopt-a-Class program by the end of the 2002-03 school year.

- Provide each class with an "in-class" wetland resource kit which will aid the teacher in exploring issues of wetland ecosystem values and wetland conservation within their science curriculum.
- Provide each class within reasonable travel distance (1 hour or less) to a DUC approved educational wetland with a 2 hour spring field trip that will complement their in-class studies about wetlands.
- To instill in each youth who participates in this program, a conservation ethic towards wetlands and nature as a whole.
- To bring corporate sponsors, local volunteers and environmental organizations together to work on a community-based youth environmental education program.

## 2.0 Outline of Work Completed

### 2001-2002 School Year

- DUC staff and volunteers secured sponsorship funds to adopt 32 grade 4 classes in Nova Scotia.
- Potential AAC schools were contacted and the program discussed with the grade 4 teacher(s) and/or Principal and permission sought by the school before sponsors were matched with their classes.
- Once approval was given by a class/school, resource kits were mailed from our Head Office in Winnipeg and sent directly to the school teacher for use and distribution to students (a total of 32 classes were registered in the AAC program from Halifax, Cumberland and Shelburne counties).
- Teachers used the resource material to help them deliver learning objectives related to Habitats and Living Things under the Science Curriculum
- A NS AAC Coordinator was hired to lead the field trip component of the program and be the primary contact person for schools and DUC volunteers who would assist with program delivery.
- Field equipment was purchased for the various activity stations of the wetland field trip (i.e. binoculars, game props, nets, buckets...).
- A call for volunteer help was issued in the Halifax region to assist with program delivery of the Gr. 4 wetland field trips. This request was posted on bulletin boards around the Dalhousie campus, on the *Federation of N.S. Naturalist* on-line message board, and emailed to all environmental science and biology students of Dalhousie.
- A volunteer training day was organized at the NS Museum of Natural History. A total of 8 volunteers decided to continue with the program (most were Dalhousie University Biology students).
- The NS AAC Coordinator developed a field trip schedule and invited all registered classes within a 1 hour drive of Rainbow Haven Marsh to attend a wetland field trip.
- A partnership was developed with the Tantramar Wetlands Centre (TWC) of Sackville NB to coordinate the invitation and delivery of wetland field trips to schools in the Cumberland County region.
- Wetland field trips were delivered to a total of 19 classes within the months of May and June 2002
- The location of the Halifax-based field trips was changed from that of Rainbow Haven to Frog Pond (Purcells' Cove Rd, Halifax) mid-way through the program because the small freshwater pond at Rainbow Haven had dried up, denying the students "critter dipping" opportunities.

- Field Trip feedback forms were distributed to all classes who participated in a field trip. Feedback forms were also issued to assess the "in-class" portion of the program (resource kit). These were distributed by our Head Office on a national level to a random sample of school classes.
- Project results were summarized and recommendations discussed between the NS AAC Coordinator, delivery volunteers and the Atlantic Education Coordinator.
- A volunteer thank-you meal was organized in Halifax to formally thank the hard work of the volunteers and provide them with DUC thank you gifts.
- Recommendations from the pilot year included changing the Halifax wetland site from Rainbow Haven (coastal beach environment) to Frog Pond on Purcell's Cove Road (freshwater pond environment) for the 2002-03 school year and using seasonal staff and/or partnership groups to deliver the field trips as opposed to volunteers.



### 2002-2003 School Year

- DUC staff and volunteers secured sponsorship funds to adopt 65 grade 4 classes in Nova Scotia during the 2002-03 school year (overall, 97 Gr. 4 classes adopted during the two year project period).
- Potential AAC schools were contacted by the DUC Atlantic Education Coordinator and the program discussed with the grade 4 teacher(s) and/or Principal and permission sought by the school before sponsors were matched with their classes.
- Once approval was given by a class/school, resource kits were mailed from our Head Office in Winnipeg and sent directly to the school teacher for use and distribution to students (a total of 65 classes were registered in the AAC program from Halifax, Hants, Colchester, Cumberland, Lunenburg and Shelburne counties).
- Teachers used the resource material to help them deliver learning objectives related to Habitats and Communities under the new Atlantic Science Curriculum.
- A new *Halifax AAC Coordinator* was hired to lead the 2002-03 Halifax field trip component of the program. Her responsibilities included organizing and coordinating the Halifax field trip program with school teachers, delivering the Halifax field trip program at two sites in the Halifax Regional Municipality (Frog Pond and Mt. Uniacke) and providing a summary report on the results of the program to the Atlantic Education Coordinator. This individual had been a key delivery volunteer in the 2001-02 pilot year and had a sound understanding of the program.
- An education partnership was established between the Shubenacadie Provincial Wildlife Park and DUC. They would deliver the field trip program to the AAC classes

that were within a 1 hour travel radius (approximately 60km radius) of the park. A Memorandum of Understanding (MOU) was signed between the Province and DUC that highlighted the responsibilities of each party. DUC would reimburse the Wildlife Park for their staffing and equipment fees to deliver this program on a fee for service basis (as outlined in the MOU).

- A new MOU was signed between TWC and DUC that outlined TWC's responsibilities to deliver wetland field trips to our AAC classes in Cumberland County on a fee for service basis.
- A DUC wetland field trip training day was organized at the TWC in Sackville NB to train staff in the delivery of our wetland field trip activities. Both our NS AAC Coordinator and the delivery staff of the Shubenacadie Provincial Wildlife Park were able to attend.
- Two-hour wetland field trips were delivered to the NS AAC classes in three areas: Halifax (Frog Pond, Mt. Uniacke), Sackville NB (Tantramar Wetlands Centre) and Shubenacadie (Shubenacadie Wildlife Park) during May and June of 2003. A total of 45 classes were able to attend field trips at one of these sites. The DUC Atlantic Education Coordinator was able to make at least one visit to each delivery site to assist and observe a program being delivered.
- Field trip feedback forms were distributed to all classes who participated in a field trip. Feedback forms were also issued to assess the "in-class" portion of the program (resource kit). The later were distributed by our Head Office on a national level to a random sample of school classes.
- Project results were summarized and recommendations discussed between the NS AAC Coordinator, educational partners and the Atlantic Education Coordinator.



### 3.0 Project Results

The following tables summarize the registration and participation results of the first two years of the Adopt-a-Class Field Trip program in Nova Scotia. A list of all participating schools along with their sponsors can be found in the accompanying Financial Report.

**Table 2.0 Nova Scotia Adopt-a-Class 2001-02 Participation Summary**

County	# Classes	# Classes that Attended	Class Participation
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	<b>Registered</b>	<b>Field Trips</b>	
Halifax	25	13	52%
Cumberland	6	6	100%
Shelburne (non-field trip)	1	0	
<b>Total</b>	<b>32</b>	<b>19</b>	<b>61% Field Trip Attendance Rate</b>

**Table 3.0 Nova Scotia Adopt-a-Class 2002-03 Participation Summary**

<b>AAC Site</b>	<b># Classes Registered</b>	<b># Classes that Attended Field Trips</b>	<b>Class Cancellations (other commitments)</b>	<b>Class Participation</b>
Tantramar	6	6	0	100%
Halifax	26	21	5(124 kids)	81%
Shubenacadie	18	18	0	100%
Non-Field Trip Areas*	15	0	0	NA
<b>Total</b>	<b>65</b>	<b>45</b>	<b>5(124 kids)</b>	<b>90% field trip Attendance rate</b>

### 2001-2002 School Year

In total 32 classes were registered in the 2001-02 AAC program and received in-class wetland resource kits. Thirty one classes were within a field trip delivery region and were invited on a field trip. Of these, 19 classes were able to attend a field trip, representing a 61% field trip attendance rate.

### 2002-2003 School Year

In total 65 classes were registered in the AAC program and received in-class wetland resource kits. Fifty of these classes were located in field trip delivery sites and were invited on a wetland field trip. Of these, 45 classes were able to attend a field trip in spring 2003, representing a 90% field trip attendance rate, an increase of almost 30% over the 2001-02 school year.

## **4.0 Project Assessment**

### 2001-2002 School Year

Field trip feedback forms were issued to all class teachers who attended a field trip in the 2001-02 program (n=19). We received completed feedback forms from only 4 teachers (21%

return rate). The feedback results did indicated a high level of teacher and student satisfaction in the program. 100% of the teachers who responded gave the overall program a rating of good to excellent. However, we must be cautious in rating the entire program based on this feedback due to the low return rate on the feedback forms.

Teacher feedback, combined with personal insight and consultation with staff and volunteers involved in this pilot study resulted in the following project assessment

- The wetland field trip is a valuable and necessary component of the AAC program and provides youth with the opportunity to make a direct connection (physically, mentally and emotionally) with wetland ecosystems
- Field trip sites must accommodate a hands-on critter dipping activity, the most favoured activity by teachers and students. Therefore, Rainbow Haven, with a more beach/dune habitat is not an appropriate field trip site for this program.
- Field trip delivery is best done by seasonal staff and delivery partners vs. volunteers. Using volunteers requires more time, training, scheduling and organizing than DUC can provide with an Atlantic Education Coordinator situated in Fredericton NB.
- Registration of AAC classes is best coordinated by staff from our Fredericton office vs. locally with the help of volunteers.

### **2002-2003 School Year**

Field trip feedback forms were issued to all class teachers who attended a field trip in the 2002-03 program (n=45). We received completed feedback forms from 12 teachers (27% return rate). The feedback results once again indicated a high level of teacher and student satisfaction in the program. 100% of the teachers who responded gave the overall program a rating of good to excellent.

Overall, the program ran much more smoothly due to the experience acquired in the first pilot year. Using educational partnerships to help us deliver the program enabled us to provide a more localized field trip site and to run field trips simultaneously in different regions of the province. Considering that May and June offer such a small window of opportunity to engage classes in outdoors field trip programming, the ability to offer field trips simultaneously at multiple sites around the province will enable us to expand the program and engage a larger number of youth in wetland education. Having the registration process centralized from our DUC office in Fredericton enabled us to better manage and track the sponsorship funds as they came in and more promptly match these funds with schools. This improved efficiency enabled us to increase our sponsorship funds and final registration numbers this year.

Teacher feedback, combined with personal insight and consultation with staff and volunteers involved in the 2002-03 program resulted in the following recommendations for next year:

- Field trips must be provided to Nova Scotia AAC classes using educational partnerships who supply the staff needed to deliver the field trips on a fee for service basis.
- There is a need to secure a field trip delivery partner in Halifax/Dartmouth who can deliver the field trips within the city. Schools who traveled from Halifax to Shubenacadie indicated that the cost of bussing was too high and the duration of the

- ride too long for a 2 hour field trip.
- A new Critter Dipping site should be found within the Shubenacadie Provincial Wildlife Park as the current one is very "scrub-like" and along a lake edge making it difficult for the entire class to access the water. A more marsh-like habitat that offers easier access to the water is needed.
  - DUC will expand this program to include the Annapolis Valley region in the 2003-04 school year. The Annapolis Valley is a conservation priority region for DUC and has many fresh water wetlands able to offer local schools a wonderful field trip opportunity.



### **5.0 Follow-up**

Schools who were involved in the AAC program in the 2002-03 school year will be the first schools registered in the 2003-04 school year. As teachers become more familiar with the material in the resource kit and recognize the educational value of the field trip to compliment in-class activities, they will become more effective at communicating wetland messages to their class. As such, we want to ensure that we maintain our current classes in the program and sign up new classes as funding allows. In this way, students will anticipate this exciting program as they move through the grade levels, having heard about the "wetland field trip" from the kids who have already experienced it. By re-registering past schools first, we ensure that both student and teacher enthusiasm for the program is not lost.

Sponsors were all provided with a thank you letter from Ducks Unlimited that highlighted how many schools, classes and teachers that the AAC program impacted in the most recent school year. They were asked, at this time, if they would be interested in re-sponsoring their class(es) for the following school year. In this way we follow up each sponsorship with a yearly update and encourage their continued support for the next year. This process builds a stronger sponsor-class relationship.

### **6.0 Financial**

The 2001-02 AAC Field Trip program's final cost was \$29,337.98 from a budgeted \$25,585.00. The 2002-03 AAC Field Trip program's cost was \$44,601.36 from a budgeted \$36,655.00.

### **Activity Descriptions**

### **1) Bird Watching**

This activity introduces students to the various types of birds living in a wetland. Students are given a brief introduction to some common wetland birds, the differences between male and female ducks and between divers and dabblers. Finally, before the students receive binoculars, they are introduced to the basics of binocular use. Students then spend the remainder of the time searching and identifying various types of birds and counting the total number of species they have observed. A scope is available for students to get a closer look at interesting birds.

### **1) Critter Dipping**

The critter dipping activity is designed to introduce students to the diversity of invertebrates living beneath the waters of a wetland. Concepts of invertebrates and microhabitat are discussed with the students and proper sampling techniques are demonstrated prior to the activity. Students then dip for "critters" using nets and buckets in various microhabitats found in the wetland. Samples are then collected in "port-a-ponds" for the rest of the class to observe. Afterwards, the group discusses what was found and each student is given the opportunity to take a closer look at the critters while the DUC interpreter discusses wetland adaptations that these creatures have. As a conclusion, the importance of invertebrates in wetland food chains is reinforced.

### **3) Migration Headache**

This game is designed to introduce students to the many challenges that migratory birds face and effects of habitat loss and creation. The session begins with a brief discussion on habitat, and how it can be created and destroyed. Carpet pieces which represent wetland habitat, are laid at both ends of the playing field. One end of the field represents a duck's winter habitat, while the other represents summer habitat. Throughout the game, students migrate back and forth between their winter and summer habitats. Several factors that affect migration are introduced each season, and a subsequent number of habitats are either taken away or added. Ducks unable to find habitat are "dead ducks" and must stand on the side. When habitat is restored, "dead ducks" can re-enter the game as new ducklings. Some of the factors introduced include oil spills, housing projects, highway development, golf course creation, wildlife refuges, forest fires, and Ducks Unlimited projects.

At the end of the game, participants gather around a white board, where they graph the changes in the waterfowl population over time. Students then engage in a discussion about some of the ways humans can alleviate some of these impacts. The students walk away with a very real perception of the difficulties associated with migration, and some of the ways humans can help.

### **4) Mystery Touch Boxes**

In this activity, students get to explore their five senses to better understand and appreciate wetlands. Students are asked what they can smell, taste, touch, hear, and see in a wetland. Five "mystery boxes" are placed on the ground, each containing a real wetland item that students will feel to guess the identify. Students are divided into five equal groups, with each group starting at a different box. Each group gets a few minutes to touch what is inside the

box and guess what it is. Groups then rotate until each group has touched each memory box item. Participants are not allowed to look inside the box. At the end of the activity, the boxes are opened and the group leader discusses why each item is important to a wetland. Items include: beaver pelt, cattail flower, duck wing, deer antler, algae, etc.

### **5) Wetland Values**

Wetland Values is a game of association that teaches the students about ten environmental values that wetlands offer. The group discusses the definition of a wetland and then proceeds to talk about the different types of wetlands found in Atlantic Canada using wetland display boards. The group is divided into three equal teams. Ten items are then distributed amongst each of the three groups. Each item represents a value offered by wetlands to wildlife and/or humans (eg. a sponge represents how wetlands absorb and holds water to prevent flooding). The station leader then reads out a series of wetland value cards. The student holding the item corresponding to the value called has to run down the field and place th item in a "wetland box" and return to their team. The first on back gains a point for their team. The game is then played in reverse with the students picking up the correct item when a value card is read to reinforce the ten wetland values. To conclude, the group reviews the ten values with the DU interpreter.

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*Atlantic Education Coordinator*

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