



## K-12 STUDENT LEARNING ABOUT BC FORESTS

### 2017 Summary Report

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#### BACKGROUND

The National Forest Week-BC Coalition (*Coalition*) promotes the celebrating of BC forests. The K-12 student learning of BC forests is part of the initiative. There are a number of other organizations across BC with programs to introduce students to the forest. This is encouraging as the human well-being benefits of exposure to the forest environment have been broadly recognized. Also, building this knowledge from an early time in the life of children has life-long influences. It also provides students with an understanding of the importance of forests to the BC economy, environment and social values for the benefit of the Province's citizens.

These forest education organizations are a BC great asset, providing the service to teachers interested in both educating their students about BC forests and using the forest as a tool in delivering the school curriculum. This asset should be supported by all BC organizations that benefit from a well-educated student population regarding BC forests.

Knowing the level of the K-12 student population involvement and the contributions of the various organizations who provide these opportunities will inform forest educators and supporters of how we can progress and improve. In addition, the data has the potential of being helpful to organizations involved in K-12 forest education from the perspective of encouraging sponsorship or internal funding support. These factors were the basis for compiling estimates regarding the number of students participating in programs that focus on learning about BC forests and the forest environment.

#### DATA COLLECTION METHODOLOGY

Organizations known to have K-12 student programs were contacted asking for actual data or estimates of the number of students participating in their 2017 program(s). During the data collection and throughout the year, additional organizations were identified with programs and added to the list of requests. **This data should be considered a low estimate, as some organizations did not respond and we know there are others not included in the survey.** Over the next few years, the data will be improved upon for use in improving K-12 student education opportunities.



It was recognized that some organizations keep records of the number of students who participated in their programs while others do not. Where no specific data was available, estimates were requested using the factor of 30 students/class. Students attending forest camps were also included.

Given 2016-2017 was the first year of data collection, changes were made in this report to better reflect presentation of the statistics. However, the actual numbers in categories are consistent.

## SUMMARY RESULTS

### Participating organizations

The organizations were categorized based on the focus of the lead organization, specifically:

- Forestry focus (i.e., forest companies, Ministry of Forests, Lands and Natural Resource Operations and Rural Development, municipal forest operations, community forest licensees, woodlot licensees)
- Forest environment focus (i.e., NGOs, Municipal Parks and Recreation Departments)
- Teacher interest led (i.e., teacher initiated and led events)
- Public and private school forest related programs

### Student participation

The number of students participating in forest related education increased by 51% over 2016-2017 levels.

ORGANIZATION CATEGORY	2016-17		# Part Org <sup>1</sup>	2017-18		# Part Org <sup>1</sup>
	K-7	8-12		K-7	8-12	
Forestry focus	4,522	203	4	4,578	4,465	6
Forest environment focus	30,645	973	9	43,054	2,823	12
Teacher interest led	1,178		3	1,700		2
School programs	120	141	6	614	130	3
<b>TOTALS</b>	<b>36,465</b>	<b>1,317</b>	<b>21</b>	<b>49,946</b>	<b>7,418</b>	<b>23</b>
<b>GRAND TOTALS</b>	<b>37,782</b>			<b>57,364</b>		

1-Number of participating organizations in the survey; some have programs in more than one category

There were 7 new participating organizations which collectively had 10,480 K-7 students and 4,694 Grade 8-12 students for a total of 15,174. This accounted for most (77%) of the additional 19,582 student participations compared to 2016-2017. Two significant increases in student participations were due to:

- One additional elementary nature focused school program being included, and
- One additional major forestry program involving secondary school students being included.



K-7 students continues to be the main group receiving forest related education (87%). Although the participation by Grade 8-12 students increased, this was primarily due to new organizations participating in the 2017 survey. These organizations have delivered secondary school programs in the past so the numbers of students has probably not actually increased.

The percentage of student enrollment experiencing the forest and forest environment remains low as identified in the following table.

<b>GRADES</b>	<b>TOTAL BC STUDENT ENROLLMENT</b>	<b>FOREST EDUCATION PARTICIPATION PERCENTAGE</b>
Kindergarten – Grade 7	373,938	14.4%
Grades 8-12	298,738	2.5%
<b>Total K-12 enrollment</b>	<b>672,676</b>	<b>8.5%</b>

Given the survey is not a complete description of the total student participation, these percentages and numbers should be considered conservative but in the ballpark, if there was total organizational participation.

There continues to be a significant amount of effort expended by a wide range of BC organizations to educate K-12 students about BC forests. The low percentages of enrollment are not because of lack of interest by teachers. Organizational capacity (funding and staffing) of providers continues to be well-below the demand for providing the opportunity for students to experience and learn about forests and the forest environment. This can be as much as 50% below demand. This situation is not limited to one type of organization. It is across the forest education sector.

Although the number of participating organizations is effectively the same as 2016-2017, there were several known forest related programs from past information that did not provide statistics (e.g., 3 Secondary schools and 1 Elementary school)

- In 2016-2017 the three Secondary schools had a total of 54 students in forestry programs which is probably the same in 2017-2018 but not included in the above table.
- The Elementary school had 88 students that participated in learning about forests



## BC regional participation

The student participation in the various organizational categories and across the Province is presented below.

ORGANIZATION CATEGORY	ACROSS BC	METRO VANCOUVER	VANCOUVER ISLAND-COAST	SOUTHERN INTERIOR	CENTRAL INTERIOR	NORTHERN INTERIOR	TOTALS
Forestry focus	600	545	1,225	546		6,627	9,543
Forest environment focus	6,000	30,045	1,996		1,229	6,607	45,877
Teacher interest led		1,700					1,700
Public school programs		636	108				744
<b>TOTALS</b>	<b>6,600</b>	<b>32,926</b>	<b>3,329</b>	<b>546</b>	<b>1,229</b>	<b>13,234</b>	<b>57,864</b>

The low numbers in the Central Interior were due to a reduction in both volunteer support and programs as the residents focused on wildfires and community evacuations.

The high forest environment focus is dominated by NGO and Municipality Parks and Recreation programs with the emphasis being in Metro Vancouver. It is the forest educators in these groups who are influencing urban students in learning about forests and the forest environment.

Teacher led events are low in numbers due to the preference for field trips and classroom lessons conducted by experienced forest related educators. There are a couple of exceptions where facilities exist that are available for use by local teachers.

## LESSONS LEARNED

- 1) The BC model of K-12 student forest education is successful even though the teacher resources and services are provided through many rather than one central organization, as in the case of other locations in Canada. However, the BC model requires a commitment to collaboration, cooperation and communications, if the current and future needs of teachers and students are to be met. This commitment has been expressed in the building of a K-12 Forest Education Collaborative (<http://bcforestconversation.com/community-education-2/k-12-forest-education-collaborative/>). It just needs cultivation.
- 2) Although there are teachers committed to learning about forests and the forest environment as a tool to deliver the required curriculum, most are not or do not have the time to do the research. There are many organizations who have produced forest related lesson plans. However, it requires



time, which teachers do not have, to search the internet for these links. A service to those teachers in using existing lesson plans would be to create a compendium of links. If methods like this are not provided, the forest education sector delivery will be limited by capacity, unless a significant increase in resourcing is provided.

- 3) The forest sector continues to identify the need for more young workers to enter the workforce. An understanding of the forest, its environment and values to BC are critical to encouraging Grade 9-12 students to move in this direction. Teachers have identified continuous exposure to forest education throughout K-12 is essential to build a sound understanding of forests and their value as an adult. The major drop-off at Grade 8 in student exposure to forests is an issue. This may be a factor in the challenges being experienced in maintaining student interest in the forest sector.

## **PARTICIPATING ORGANIZATIONS**

Alberni District Secondary School
Alouette River Management Society
Carihi Secondary School
Canadian Institute of Forestry-Vancouver Section
Capital Regional Parks
Columbia Outdoor School
Council of Forest Industries
District of Mission Tree Farm License
Evans Lake Forest Education Society
Gavin Lake Forestry Society
Greenheart Canopy Walkways Company
Lynn Canyon Ecology Centre
Metro Vancouver Regional Parks
National Forest Week-BC Coalition
Northwest Wildlife Preservation Society
Regional District Central Okanagan
Soaring Eagle Nature School (NEW)
Stanley Park Ecology Society
UNBC Aleza Research Forest
UNBC Chuntoh Education Society
Wild BC