

ROCK. SOLID. HISTORY.

THE JOGGINS FOSSIL INSTITUTE

ANNUAL REPORT

FISCAL YEAR | APRIL 1, 2017 TO MARCH 31, 2018





The Joggins Fossil Institute is a not-for-profit, charitable organization.

Our mission is to be exemplary in fulfilling our responsibilities under the United Nations Convention for the Protection of World Cultural and Natural Heritage to protect, conserve, and present the outstanding value of the Joggins Fossil Cliffs through research, education, and tourism.



United Nations
Educational, Scientific and
Cultural Organization



The Joggins Fossil Cliffs
inscribed on the World
Heritage List in 2008

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**Where the world-famous
Bay of Fundy exposes a
300-million-year-old story.**

MESSAGE FROM THE STAFF

The Joggins Fossil Institute is a not-for-profit, charitable organization whose mission is to protect, conserve, and present the outstanding value of the Joggins Fossil Cliffs through research, education, and tourism. The 2017 season at the Joggins Fossil Cliffs marked our ninth year of operations as an Institute and a UNESCO World Heritage Site. We think you will agree that it was an exciting year that did even more to further our mission: we saw an 11% increase in revenue from admissions and tours; a new, permanent exhibit officially opened that included a wonderful and heart-felt celebration of life for the late, great Don Reid (the original Keeper of the Cliffs, steward of the site); children's day camps, both over the summer and March Break, were a huge success and gave the local kids more educational opportunities than ever before; research continues to thrive in-house and with interest from the broader scientific community; we hosted our very first and excellent Artist-in-Resident, Sophie Jaillet, who truly captured the spirit of this special place; and we are making plans to begin serious fundraising efforts to make our organization even stronger!

Remember to stay connected with us through social media, our website/blogs, and quarterly newsletters.

The Joggins Fossil Institute team,



Melissa Grey



Jordan LeBlanc



Laurie Glenn Norris



Lorna Terrio



BOARD OF DIRECTORS

EXECUTIVE

Mr. Don Trenholm
Chair
Resident-Cumberland County

Dr. Elisabeth Kusters
Vice-Chair and Chair of the
Science Advisory Committee
Member at Large

Ms. Dayle Morris-Quinn
Treasurer
Resident-Cumberland County, District 9

OTHER DIRECTORS

Mr. Don Fletcher
Resident-Cumberland County

Ms. Stephanie MacPherson
Member-at-Large

Ms. Joanne Porter
Resident-Cumberland County

Ms. Laura Reinsborough
Member-at-Large

Ms. Tammy Allen
Member-at-Large

APPOINTED

Mr. Craig Beaton (Nov/17)
replaced by Mr. Christopher Shore
Ex-officio & non-voting
Department of Communities, Culture and Heritage
Government of the Province of Nova Scotia

Mr. Brian Fisher (Nov. 17)
Ex-officio & non-voting
Department of Natural Resources
Government of the Province of Nova Scotia

Mr. Mike McLellan
Ex-officio & non-voting
Municipality of the County of Cumberland

MANAGEMENT TEAM

Dr. Melissa Grey
Director of Science/Curator of Palaeontology

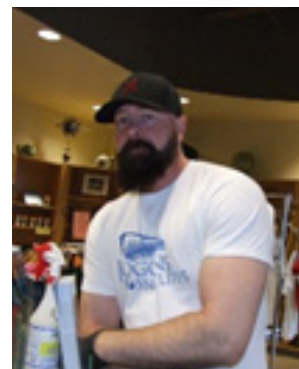
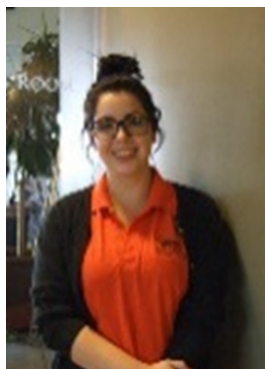
Mr. Jordan LeBlanc
Director of Operations

Ms. Lorna Terrio
Director of Administration

Ms. Laurie Glenn Norris
Education and Outreach Manager



Permanent staff at JFI (L to R): Laurie Glenn Norris, Jordan LeBlanc, Melissa Grey and Lorna Terrio.



2017 seasonal staff at JFI:

Left image: Langille Weatherbee

Middle image (L to R): Mel Hatter, Rebecca Beardsley, Joyce MacAloney, Stephanie Mawdsley, Cathy Hoeg, Nicole Smith and Calvin Pratt.

Middle image: Dana Brown

Right image: Darren Doncaster

A group of hikers is seen from behind, walking along a rocky, uneven trail. The trail is composed of large, flat, layered rock slabs and smaller stones. In the background, a steep, light-colored rock cliff rises sharply, showing distinct horizontal geological strata. The sky is a clear, bright blue with a few wispy clouds. The hikers are dressed in casual outdoor gear, including backpacks, hats, and hiking sticks. The overall scene is one of a scenic hiking spot in a natural area.

OUTSTANDING!

“Really fascinating place and highly recommended. We went when it was raining lightly, misty and magical.”

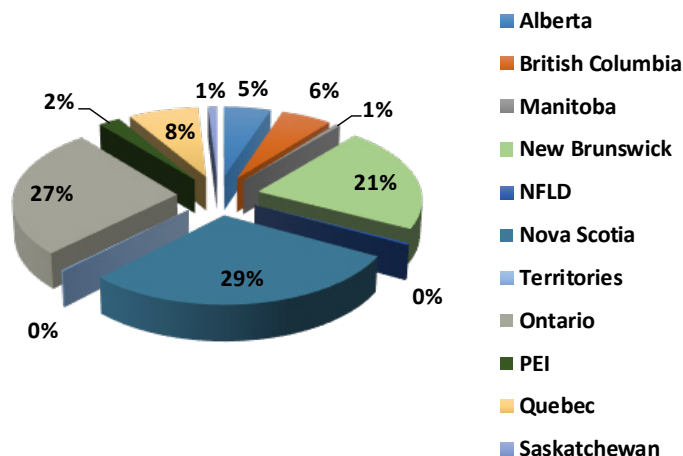
Papadroid, Bethesda, Maryland

Trip Advisor (visited October, 2017)

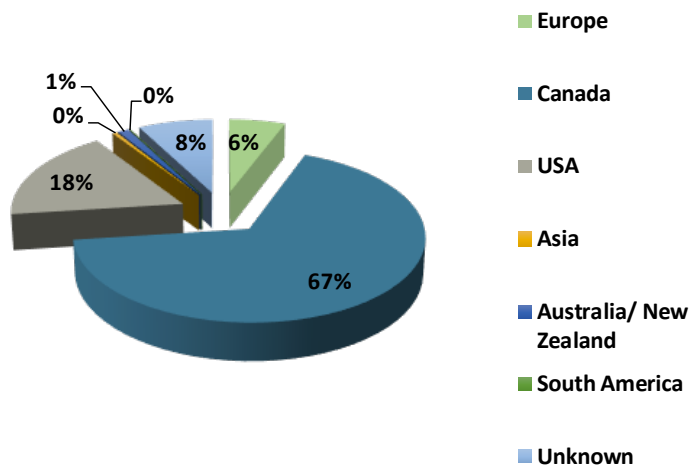
THE NUMBERS

Number of Facebook likes.....	2,798
Number of Twitter followers.....	638
TripAdvisor rating.....	4.5
Average number of website sessions per day.....	136
Total number of website sessions this year.....	49,473
Number of people who paid admission.....	15,270
Estimated visitors to Joggins Fossil Cliffs UNESCO World Heritage Site.....	25,000
Highest weekly sales.....	August 7-13

CANADIAN VISITOR PROVINCE OF ORIGIN



VISITOR COUNTRY OF ORIGIN



EDUCATION, EXHIBITIONS & OUTREACH

EDUCATION

Education is a critical component of our mission at the Joggins Fossil Institute. Everyone who visits the UNESCO World Heritage Site is immersed in some form of education: from multi-generational family groups visiting the beach and discovering fossils, to planned visits by school groups who are seeking to accomplish specific learning outcomes. Outreach is also an important component of education at the Institute and allows us to reach an even broader audience.

GROUP TOURS

The Joggins Fossil Centre hosted 13 different school groups, totalling approximately 730 students! Student groups ranged from kindergarten to university, visiting mainly from around the Maritime Provinces. Other tour groups, including special interest, seniors' educational groups, and bus tours accounted for dozens of bookings and hundreds of visitors. Group bookings are nearly split 50/50 between school groups and special interest/tour bus groups.

A typical group visits the Exhibition Gallery and the beach, and may also participate in a curriculum-oriented activity such as: CSI Joggins (Carboniferous Scene Investigation), Geological Timeline Exploration, or casting and molding of fossils. Popular activities for university groups include: creating a stratigraphic log of a portion of the cliffs and fossil quadrat surveys.

SUMMER AND MARCH BREAK CHILDREN'S DAY CAMPS

The Joggins Fossil Institute offered day camps in July and August. These popular camps offered new learning experiences for local children. Laurie, our Education and Outreach Manager, entertained them with crafts, scavenger hunts, fossil explorations, games, planting and caring for the Learning Garden, and more. Many thanks also to workshop providers, volunteers and participants for making this year another success!



The Joggins Fossil Institute offered its seventh year of March Break Children's Day camps from March 13-15, 2018. For ages 5-12, the activities spanned a variety of disciplines including the visual arts, writing, rug hooking, drama, history and science. The March Break Children's Day camps were sponsored by the Municipality of the County of Cumberland.

EDUCATION, EXHIBITIONS & OUTREACH

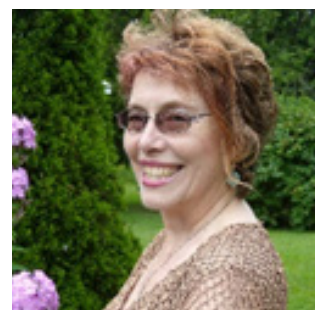
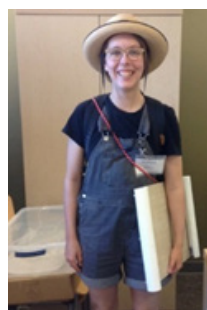
FIBRE ARTS FRIENDS

Fibre Arts Friends, offered nine months a year, has proved to be a popular programme with crafters in the area. Participants bring their rug-hooking, knitting, crocheting, stain-glass work, cross-stitch, needle point etc. and have a wonderful time creating.



ARTSCAPE: THE ARTIST-IN-RESIDENCE PROGRAMME

Sophie Jaillet, a visual artist from Montreal was chosen as the first ArtScape Artist-in-Residence. Her project STILL was jury-selected from eighteen submissions from across Canada and from Ireland, New York and Serbia. Her six-week residency took place from July 31st to September 8th and included drawing on the beach at low tide, making paper, leading workshops and learning/participatory opportunities for visitors of all ages. ArtScape: The Artist-In-Residence Programme 2017 was sponsored by ArtsNS and the Municipality of the County of Cumberland.



Elizabeth Copeland (pictured far right) a writer and poet from Sackville, NB was chosen in August as the 2018 JFI: Artscape Artist-in-Residence.

EDUCATION, EXHIBITIONS & OUTREACH

EXHIBITIONS

COLLECTING COMMUNITIES: A CARBONIFEROUS CABINET OF WONDERS

A new, permanent exhibit opened in May, 2017 that highlights collections, collecting and collectors. Early museums had their origins in “cabinets of wonder/curiosity” and collectors today add significant value to museums. The exhibit contains historical pieces from the local community’s personal collections and is in part a tribute to local collector, Don Reid ONS (1922-2016), whose material comprises over 60% of the collection at the Joggins Fossil Institute.



OUTREACH

CONFERENCES

The Curator of Paleontology presented papers at two conferences this past year:

Canadian Paleontology Conference: *The bountiful coprolites of the Joggins Formation*

Atlantic Geosciences Society's Annual Colloquium (co-convened a special session entitled “Museum and University Geology/Paleontology Collections” – in memory of Don Reid, ONS (1922-2016)): *Honouring Don Reid ONS (1922-2016) and his foundational collection at the Joggins Fossil Institute*

The Education and Outreach Manager attended the following:

Museums and Community workshop (presented by the Association of the Nova Scotia Museums) which focused on a museum’s roles and responsibilities in community building.

Nova Scotia Teacher’s Union Conference (presented by the Association of Science Teachers). A trade show informing teachers about the Institution’s school tours and adventure programmes. We got a lot of compliments on our new travelling display unit!!

EDUCATION, EXHIBITIONS & OUTREACH

PRESENTATIONS AND TALKS

The Joggins Fossil Institute delivered presentations to community, school, and professional groups, with attendees totalling approximately 250 people in 2017/18. The Institute's staff delivers presentations, as requested, either at the Joggins Fossil Centre or at other locations around the Maritime Provinces. A sampling of groups we delivered off-site talks to this year include: Mount Allison University (x3) and Acadia University (x2). Our Curator of Palaeontology was also invited to participate as a WISE (Women in Science and Engineering) Advisor at an event for undergraduate students at Acadia University where she spoke to dozens of students looking for career path options.



WISE
ACADIA UNIVERSITY

Want to learn more about being an **Evolutionary Palaeontologist?**

Meet with Melissa Grey!

Melissa Grey is an evolutionary palaeobiologist with a BScH in Biology (Acadia University, 1999), MSc in Zoology (University of Guelph, 2001) and PhD in Geological Sciences (University of British Columbia, 2009). She is the Curator of Palaeontology at the Joggins Fossil Institute, the organization that manages the Joggins Fossil Cliffs UNESCO World Heritage Site. Melissa enjoys travelling, hiking and camping (especially with her husband and dog, Pepper), biking, soccer, and consuming fabulous food and drink!

Find out more at WISE Works!
Monday, October 30th
4:30-6:30pm in Fountain Commons
Pizza and refreshments will be served!



Cliff Notes
The official newsletter of the Joggins Fossil Institute

IN THIS ISSUE

- ArtScape Review
- Events at JFI
- Education and Outreach activities
- Seasonal review

NOTEWORTHY

Dr. Melissa Grey, JFI's Curator of Palaeontology, will be attending and presenting her research with her research student (and past JFI intern), Mia Chapman, and collaborator, Dr. Peter Hvalby (Queen's University), at this year's Canadian Palaeontology Conference in Calgary!

ArtScape: JFI's Artist-in-Residence

Sophie Jallat, the first ArtScape Artist-in-Residence, spent six weeks, from July 31st to September 8, at the Joggins Fossil Centre. She was on the beach daily at low tide drawing a portion of the cliffs, constructing a home-made paper; participated in the Kids' Summer Camps and hosted an artist talk and open studio. Sophie was an excellent addition to the Centre and she will be missed. Best of luck in the future Sophie!

ArtScape was made possible with funding from the Municipality of Cumberland County and ArtsNS. Thank you!

Events at the Joggins Fossil Institute

- **Science Literary Week** (September 21) Major Melissa Reynolds and "Evolving Canadian Armed Forces Operations through Science." 11:00 a.m. Sponsored by the Dept. of National Defense.
- **United Nations' Day Volunteer Luncheon** (October 24) 12:00 noon.
- **Scary Stories for Grown-ups** (October 30) 7:00 p.m.
- **Halloween Treats** (October 31) 3:00 p.m.-5:00 p.m.
- **Centre closed for season; open by appointment from Nov 1 to April 21.**
- **Christmas Sale** (November 18) 11:00 a.m. - 2 p.m.

MEDIA AND THE CLIFF NOTES NEWSLETTER

To get the word out about happenings at the Centre, staff have begun to submit articles to the local newspaper (*The Citizen-Record*) and have been distributing a quarterly newsletter entitled Cliff Notes (past editions found under the "Outreach" tab of the JFI website: <http://jogginsfossilcliffs.net/outreach/cliff-notes/>). Beginning in January 2018 Cliff Notes has been distributed via MailChimp. Numerous articles and photos, covering events at the Centre, were published in the *Citizen-Record* and *Amherst Daily News* during the past year. On-line articles appeared in the local newspapers and *The Chronicle-Herald* as well as Public Service announcements and interviews on CBC Radio in Nova Scotia and New Brunswick, and Cable 10.

Join our mailing list to receive our Cliffs Notes e-newsletter here:

jogginsfossilcliffs.net/outreach/email-list or email education@jogginsfossilcliffs.net



FASCINATING!

“It is overwhelming to think that you can pick up a rock on a beach and know that it is about 300 million years old! The fossil cliffs and beach are so fascinating that I was in awe. This is a must see in Nova Scotia.”

Betsy H.

Tripadvisor (visited July 2017)



SCIENTIFIC RESEARCH & COLLECTIONS

SCIENCE ADVISORY COMMITTEE (SAC)

The Joggins Fossil Institute's Science Advisory Committee (SAC) advises the Board on research and other scientific matters related to the site and its management. The SAC currently consists of nine volunteer members from two federal government departments (Canadian Wildlife Service and Geological Survey of Canada), one provincial government representative (Department of Communities, Culture, and Heritage) and three Maritime universities (Dalhousie University, Mount Allison University and Cape Breton University). Members specialize in geology, palaeontology, biology, or environmental sciences. The Curator of Palaeontology is an ex-officio member of the SAC and, in conjunction with the Chair (Dr. Elisabeth Kesters), is responsible for organizing meetings, taking and distributing minutes, and reporting to the Board on SAC recommendations. The SAC meets twice a year and submits an annual report to the Board summarizing the committee's work.

The bulk of efforts from the SAC in 2017 involved the planning and organization of JFI's first research symposium, scheduled for September 22, 2018, with the aim to attract regional, national and international researchers.

RESEARCH

Formal research collaborations remain established between JFI, Acadia University and Mount Allison University (the Curator of Palaeontology is an adjunct professor at both universities).

Max Chipman, Honour's student through Acadia University, (co-supervised with Dr. Peir Pufahl) has completed his research on Joggins fish coprolites and a manuscript is in preparation for submission to a journal. Max was awarded the CSPG award at the Atlantic Universities Geoscience Conference for best student talk.

Two papers on Joggins research, co-authored by the Curator of Palaeontology, have been published in journals:

Prokop, J, Pecharová, M., Nel, A., Grey, M., and Hörschemeyer, T. 2017. A remarkable insect from the Pennsylvanian of the Joggins Formation in Nova Scotia, Canada: insights into unusual venation of Brodiidae and nymphs of Megasecoptera. *Journal of Systematic Palaeontology*. (published online: <http://dx.doi.org/10.1080/14772019.2017.1283364>)

Lelièvre, P.G. and Grey, M. 2017. JMorph: a digital tool for measuring fossils. *Computers and Geosciences* 105: 120-128.

SCIENTIFIC RESEARCH & COLLECTIONS

COLLECTIONS

Seventy-nine new specimens, collected under the Heritage Research Permit system, were added to the Nova Scotia Paleontological Collection (housed at the Joggins Fossil Centre) for research and educational purposes. The bulk of the new specimens were fish coprolites used for recent research.

The total number of specimens in the collection now numbers over 1800, with a Working Collection of approximately 85 specimens. The Working Collection is used for educational experiences and activities in the gallery and off-site for outreach.

Taxonomic Category	# New Specimens in 2017	Total
Invertebrates	-	90
Paleobotany	5	717
Structural	-	19
Traces	74	615
Vertebrates	-	351
Unknown	-	27
Total	79	1819



The on-line database for the Collection held at the Joggins Fossil Centre can be found at:
<http://jogginsfossilcliffs.net/research/collection/>

EVENTS 2017/18

Centre Opening and Laurell Hamilton: Explorations In Acrylics Exhibition Opening	April 22, 2017 Earth Day – Centre opened for the season!
Tribute to the late Don Reid ONS and opening of Carboniferous Cabinet of Wonders Exhibition	May 18, 2017 Full day with board meeting, AGM, and a well-attended tribute to Don Reid, the Keeper of the Cliffs.
Adopt-A-Highway Cleanup day	May 24, 2017 Thirty-one local volunteers and River Hebert District School students participated.
9th UNESCO Anniversary	July 7, 2017 John Calder reading and book signing & Dara Legere illustrated presentation “August Gale of 1927 and the voyage of the Minas Princess”
Summer Day Camps	Tuesdays in July and August, 2017 Activities included organic gardening, fossil-related activities: nature activities, yoga and writing.
Artscape: Artist-in-Residence Program	July 31 to September 8, 2017 Artist Sophie Jaillet completes her six weeks residency.
Science Literacy Week	September 21, 2017 Major Melissa Reyes presents “Evolving Canadian Armed Forces Operations through Science, to the River Herbert District School grade 12 class.”

EVENTS 2017/18

Volunteer/Supporter Appreciation Luncheon	October 24, 2017 United Nations' Day!
Scary Stories for Grownups	October 30, 2017 Reading by Education and Outreach Manager, Laurie Glenn Norris.
Halloween Treats	October 31, 2017 Halloween treats for kids.
Christmas Sale	November 19, 2017 Five local vendors set up tables to sell their wares along with sales in the Centre's Green Crow Gift Shop.
Winter Music	January 21, 2018 Solo violinist Evelina Khustavino plays J.S. Bach Partita for violin solo #1.
Heritage Day/Community Coffee Break	February 19, 2018 Dara Legere's illustrated presentation "300 Years and Still Standing" on history of Joggins.
March Break	March 13-15, 2018 Children's day camps. Activities included Bird Watching with Bird Studies Canada, Farming biodiversity with Broadfork Farms, Improv with Charlie Rhindress & Heather MacIntyre.

MEMBERSHIPS, PARTNERSHIPS & SUPPORTERS

Association of Nova Scotia Museums.....	Member
Atlantic Geoscience Society.....	Member
Bay of Fundy Ecosystem Partnership.....	Member
Bay of Fundy Tourism Partnership.....	Member
Geological Association of Canada, Paleontology Division.....	Member
Canadian Geological Foundation.....	Supporter
Government of Canada.....	Supporter
Government of Nova Scotia.....	Supporter
Municipality of the County of Cumberland.....	Supporter

LIFETIME KEEPERS OF THE CLIFFS

Lifetime Keepers of the Cliffs are those exceptional individuals who have made a significant contribution to the development and support of the Joggins Fossil Institute.

Ms. Jenna Boon	Dr. Laing Ferguson (1935-2013)
Mrs. Edna Boon	Mrs. Rhonda Kelly
Mr. Mark Boon	Mr. Don Reid, ONS (1922-2016)
Dr. John Calder	Dr. Graham Williams

WHO WE SUPPORTED IN 2017/18

Adopt-a-Highway; Atlantic Universities Geoscience Conference; Joggins Volunteer Fire Department; River Hebert Curling Club; River Hebert District School; River Hebert Gardening Club; Nova Scotia Nature Trust; Royal Canadian Legion Branch #4, Joggins; River Hebert and Joggins Development Association; River Hebert Heritage Models Museum and Minudie Heritage Association.

VOLUNTEERS

The individuals listed below have enthusiastically donated their time to assist with activities, events and/or sit on the JFI Board of Directors, Fundraising and Science Advisory Committees

Louanne Berry	Children's Camp Volunteer
Susan Beaton	Children's Camp Volunteer
Dr. Nikole Bingham-Koslowski	Science Advisory Committee Member
Dr. Suzie Currie	Science Advisory Committee Member
Charlene Daborn	Children's Camp Volunteer
Dr. Lynn Dafoe	Science Advisory Committee Member
Dale Fawthrop	Children's Camp Volunteer
Don Fletcher	Board of Directors Member
Maureen Glennie	Children's Camp Volunteer
Don Grey	Volunteer
Pam Harrison	Volunteer
Sara Jewell	Children's Camp Volunteer
Dara Legere	Volunteer
Dr. Elisabeth Kusters	Chair, Science Advisory Committee, Vice Chair of Board of Directors
Dr. Peter Lelievre	Volunteer
Dr. Jason Loxton	Science Advisory Committee Member
Dr. Jeff Ollerhead	Science Advisory Committee Member
Stephanie MacPherson	Board of Directors Member
Dayle Morris Quinn	Board of Directors Member
Julie Paquet	Science Advisory Committee Member
Joanne Porter	Board of Directors Member
Laura Reinsborough	Board of Directors Member
Don Trenholm	Chair, Board of Directors
Dr. Grant Wach	Science Advisory Committee Member

STATEMENT OF FINANCIAL ACTIVITY

	2016-2017	2017-2018
REVENUE		
Federal Student Funding	\$7,664	\$6,744
Provincial Funding	\$257,676	\$259,070
Municipal Funding	\$25,000	\$28,393
Non-Government Funding	\$3,500	\$776
Admissions	\$135,099	\$151,326
Gift Shop	\$58,038	\$64,138
Cafe	\$31,473	\$24,653
Fundraising	\$2,279	\$3,967
Other	\$5,008	\$2,971
Rental	\$237	\$518
Total Revenue	\$525,974	\$542,556



STATEMENT OF FINANCIAL ACTIVITY

	2016-2017	2017-2018
EXPENSES		
Artist in Residence	-	\$7,597
Advertising and Promotion	\$13,957	\$7,238
Consulting Fees	-	\$8,100
Interest on Obligations Under Capital Lease	\$3,019	\$1,544
Insurance	\$5,413	\$5,480
Interest and Bank Charges	\$4,656	\$5,074
Legal Fees	\$31	\$31
Memberships	\$350	\$271
Miscellaneous	\$3,080	\$2,008
Office	\$5,697	\$5,636
Professional Fees	\$6,084	\$6,820
Project Expense (New Exhibit)	\$2,263	-
Purchases (Gift Shop and Café)	\$50,762	\$43,617
Repairs and Maintenance	\$30,141	\$24,525
Salaries and Wages	\$331,906	\$320,073
Supplies	\$3,020	\$3,013
Telephone	\$7,360	\$6,513
Training	\$2,407	\$3,520
Travel	\$3,075	\$3,669
Utilities	\$41,826	\$38,713
Total Expenses	\$515,047	\$493,442
Excess (Deficiency) of Revenue Over Expenses	\$10,927	\$49,114



JOGGINS F_{FOSSIL} CLIFFS