

Sable Island Update

Ninth Annual Public Meeting

Tuesday, November 26th, 2013

7:00 - 9:30 pm

**Theatre Auditorium, McNally Building
Saint Mary's University Campus**

Talks about research, island activities, and the Sable Island National Park Reserve, followed by a Question & Answer session, and reception.

Illustrated talks about research and operations—speakers:

- Timothy Frasier, Biology Department, Saint Mary's University.
- Zoe Lucas, naturalist and Sable Island resident.
- Parks Canada.

The meeting has been organized by the Friends of the Green Horse Society and the Ecology Action Centre, and is co-hosted by Saint Mary's University, the World Wildlife Fund, the Canadian Parks and Wilderness Society, and the Nova Scotian Institute of Science. Thomas Rand, Saint Mary's University, will chair the meeting.

There is no charge for this event.

For more information about Sable Island: www.GreenHorseSociety.com

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Program Details - Three Illustrated Talks

Using 25 Years of Life History Records & Specimen Collections to Study the Sable Island Horses

Timothy Frasier

Associate Professor, Biology Department, Saint Mary's University

Tim Frasier's research program focuses on combining field data with genetic analyses to better understand the biology of small populations, and to inform conservation actions. Most of his research is focused on whale species of the east and west coasts of Canada, and in southeast Asia. Since moving to Halifax in 2009, he and Brenna Frasier have been collaborating with Zoe Lucas to combine genetic analyses with long-term life history records on the Sable Island horses to improve our understanding of the factors influencing reproductive success, health, and survival.

Talk subject (15 minutes): Study of the Sable Island horses—collection of field observations and specimens—has been underway since the early 1980s. This non-invasive work has produced a wealth of information regarding the life history, health, and movements of each individual. The reproductive success of females can be determined in

the field through monitoring of foal births and lactation. However, it is impossible to identify paternity in the field, and this lack of information on males limits our knowledge of the reproductive biology of this population. Beginning with studies to assess protocols for analysis and archiving of this unique collection of samples, some preliminary genetic analyses have been completed. Results show that the number of individuals contributing to the gene pool is low, indicating a high variance in reproductive success, and potentially raising concerns about the rate at which this population will lose genetic diversity. The ultimate goal is to build the family tree for this population. These data will provide an understanding of factors affecting reproductive success, and will be used to assess ecological conditions that shape patterns of health, mortality, and population trends.



Mare gazing sandwort on the west spit as her foal stands snoozing

Sable Island Sightings & Beachings, and Review of the Island's Tourism History

Zoe Lucas

Sable Island naturalist

Zoe first visited Sable Island in 1971, and during the past four decades has been involved in numerous research and environmental monitoring programs, including long-term study of the Sable horses, and beach surveys for marine litter, and stranded cetaceans. Zoe also participates in projects supported by the Friends of the Green Horse Society, including study of the island's lichens, mosses, fungi, invertebrates, and fresh water ponds. Results of programs have been published in various scientific journals. Since 2002 Zoe has managed and prepared text and images for the Sable Island website, www.GreenHorseSociety.com. In 2004 she became a Research Associate with the Nova Scotia Museum, and in 2008 received an Honorary Degree from Dalhousie University.

Talk subject (15 minutes): Brief account of weather and goings-on during the 18 months since the last “year review” of island highlights (the last Sable Island Update was held in March 2012). Zoe will also provide a brief overview of the island's tourism history—although the park designation raised concerns about opening the island to tourism, tourism is not new to Sable Island. For decades people have been visiting the island, arriving by air and private boat, and occasionally by expedition vessel.



Mountain Fly Honeysuckle, thought to have been extirpated on Sable Island, found again

Parks Canada - Celebrating the Establishment of Sable Island National Park Reserve, Next Steps

Parks Canada began managing Sable Island as a national park reserve on April 1st, 2013, and in June, passage of Bill S-15 created Sable Island National Park Reserve, Canada's 43rd (and second-to-newest) national park. Parks Canada representatives will review the establishment of the park, discuss experiences and accomplishments of Parks Canada's first spring and summer on Sable Island, and discuss next steps (*presentation 30 minutes*). A longer-than-usual Q-&-A Session will follow to allow Parks Canada to respond to questions from the audience.



Parks Canada personnel welcome kayakers to Sable Island after their long paddle from Canso, Nova Scotia, to raise funds for a children's charity

