



# Annual Report for 2022

## Activities, accomplishments, and reflections

### Summary

The Foundation sponsored several workshops in 2022, two through the University of Hargeisa and others in Sanaag. One of the two at the university was on environmental monitoring, the other on the collection, preparation, and identification of insects for deposition in a museum. Those offered in Sanaag were on the sustainable management of Frankincense trees and engaging local communities in activities that, in the long term, will see development of ecological networks for a community-based ecological health monitoring network, starting with a focus on frankincense trees.

The museum took a major step forward with the addition of its first insect collections. These came from students in the workshop. In addition, seventy specimens were added to the herbarium and equipment for imaging the specimens was set up in December.

Other developments were acquisition of the copyright to “Introduction to the Plants of Central Somaliland”, a decision to help the University of Hargeisa develop an introductory teaching laboratory for biology and other basic sciences, and discovery that there are no good sources of native seeds, seedlings, and saplings in Somaliland. This last severely hampers any effort at ecological restoration.

### Highlights

#### Workshops

An environmental monitoring workshop taught by Dr. Hakim Abdi, a Research Associate at the University of Lund, Sweden, and was held on campus in October. It lasted 1.5 days. Twenty-four students participated in the workshop. At the end of the workshop, Dr. Abdi donated some sensors to the Museum. They have not yet been installed anywhere.

The insect workshop lasted five days and was held off-campus, at Darasalaam, a small village near Hargeisa. This made it easier to collect diurnal and nocturnal insects. It also made for a more intensive learning experience. It was led by Dr. Tharina Bird, who has extensive experience collecting and teaching in several African countries. The workshop’s focus was on collecting, sorting, and preserving insect specimens. When Dr. Bird and the students returned to campus their interactions made it clear that the workshop had been a success. Dr. Bird commented that she was impressed by the quality of the students, their interest in learning, and the way in which they worked together to make sure that everyone respected the schedule that had been established. She also commented, however, that their background was very poor. She was not completely surprised, particularly when she heard that the University of Hargeisa does not include laboratory time in introductory science classes, nor did it have an introductory teaching

laboratory.

The Foundation sponsored a certificate ceremony after the workshop for which Dr. Bird developed a presentation on the importance of collections and the Foundation paid a photographer to record the ceremony for use by a local television station. Unfortunately, the ceremony did not start on time. By the time the University representatives finished speaking and one certificate had been awarded, the photographer had to leave. This minimized the event's publicity value.

## **Frankincense**

Work on frankincense focused on increasing the trade's sustainability through community training and the capture of relevant data. The training focused on these two issues. Several training sessions were held at various locations in Sanaag. They were well attended and appreciated. At each the goal was to promote good harvesting practices while setting the stage for a broader community-based ecological health monitoring network, starting with a focus on frankincense trees.

Raw frankincense resin samples have been collected from more than a dozen communities around Sanaag, along with data on the number of harvesters in the communities, individual harvesting sites (farms), production per harvesting site, which species are present in the community, age of harvesters, etc. These data combined with general data about some of the key harvesting communities in Sanaag, provide a baseline concerning the amount of bark in the resin being collected, a proxy for the harvesting practices used (less bark means better harvesting practices, typically).

## **Teaching**

Once again, Faisal Jama was asked to teach plant taxonomy for students in the College of Agriculture. He drew on resources posted online by Ali Rezaye. The class is a 3-credit class which meets, theoretically, for 3 hours per week, from 4 p.m. to 7 p.m. Because Barkworth was in Hargeisa, for one class session, she offered to teach the class about grasses, emphasizing the kinds of grasses that grow in Somaliland. This opened her eyes to the lack of an introductory teaching laboratory. The class, which had 29 students, met in a new lab space equipped with a few electrical outlets and six small tables. To ensure each student had a chair, the male students arrived with chairs from other classrooms. The students did make good use of the hand lenses and dissecting microscopes that the Foundation has provided. Another discovery was that, although the class is scheduled for three hours, it actually lasts only 2.25 hours because it overlaps two prayer times. While prayer times change over the course of a semester, Somaliland is so close to the equator, the impact affected all sessions of plant taxonomy. Consequently, the class is, in effect, a 2 credit class with minimal hands-on experience.

### **Introductory teaching laboratory**

On discovering that the University of Hargeisa does not have a teaching laboratory, Barkworth asked for a meeting with university administrators. One was arranged, on very short notice. The basic problem is lack of funding. Barkworth, on behalf of the Foundation, agreed to equip one of the rooms in the new laboratory building as a basic laboratory for teaching plant taxonomy plus

other sciences with similar needs. As a first step, Barkworth and Faisal looked for a source of suitable worktables and started discussions with City Furniture, the Hargeisa company that made the museum's specialized cabinets and workbench. All are of excellent quality. An order was placed shortly after her next visit, in December.

## **Museum development**

The major development for the museum was the initiation of an insect collection. This was a direct result of the insect workshop. The workshop also required the purchase of several items of equipment. Most, however, can be used in future workshops. Unfortunately, our present funding level precludes offering more workshops in the immediate future, nor can we provide a manager for the insect collection.

The herbarium also grew, albeit rather slowly. Some of the fieldwork that enabled these additions was funded by non-foundation sources, notably Hakim Abdi, Ahmed Awale, and Helen Pickering. Almost all collections were made in Central Somaliland.

A significant acquisition for the herbarium was imaging equipment, along with a dedicated computer. Unfortunately, there was not time to work out an effective imaging workflow before Barkworth had to leave. Imaging the herbarium's specimens will make it easier to ask experts outside Somaliland to assist in identifying them or correcting their existing identifications.

### **Space needs**

At the meeting with the administrators, the museum's future space needs were discussed. It was agreed that the museum needs more space, both for expansion of the collection and to allow space for more than one individual to work in it. Barkworth emphasized the importance of having a teaching laboratory nearby, but not in, the museum. It was, however, agreed to start by furnishing the space used for teaching plant taxonomy as an introductory science laboratory. The items provided by the Foundation will be free-standing so that, when better space becomes available, they can be moved there.

## **Communications**

### **Introduction to the Plants of Central Somaliland**

In 2018, the Red Sea Cultural Centre in Hargeisa, published an illustrated book titled "Introduction to the Plants of Central Somaliland" in both an English and Somali version. It was written and illustrated by Helen Pickering and Ahmed Awale and translated into Somali by Faisal Gelle and Ahmed Awale. The English version sold out in two years and, in 2022, only a few copies of the Somali version were available. A tweet by Awale in that year revealed keen interest on the part of many of his followers in purchasing a copy. Unfortunately, there were no funds for reprinting either version.

After talking with Ahmed, Dr. Jama, Director of Cultural Centre, agreed to relinquish the copyright to Ahmed and Helen who then transferred it to the Foundation with the understanding we would print a second edition, but on a cost recovery plus basis so we could build the funds needed for printing a third edition and/or other marketable publications. Barkworth agreed to look for a

publisher who would be able to market it effectively outside Somaliland. We shall also explore options for marketing within Somaliland.

### **Newsletter**

One issue of the Newsletter was published in August 2022. Unlike other editions, its focus was primarily on education and the University of Hargeisa, but it also drew attention to a major effort by LanderProsopis to convert *Prosopis*, arguably Somaliland's most serious weed, into a competitive business and source of employment for Somalilanders. Guleed Ahmed, the CEO of LanderProsopis, is working with several other entities, including WelterHungeHeft, and has set up a non-profit organization, Reseed, to support efforts to replant areas cleared of *Prosopis* to a mix of plants, including many native species.

### **Fundraising**

Once again, there was no active fundraising program this past year. In articles about fund raising, it is recommended that organizations initiate fundraising with a specific target, both for the funds needed and the reason they are needed. My intent was to send a letter to our likeliest prospects in August, after the appearance of the newsletter, primarily to ask for assistance in purchasing laboratory benches. Unfortunately, we were unable to settle on a design and obtain a cost estimate until December and, because it was important to acquire the tables in time for this year's offering of plant taxonomy, we had to place the order immediately rather than ask for external funding.

Mary Barkworth, Secretary  
Somaliland Biodiversity Foundation

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