



## **Omora Newsletter**

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*Integrating biocultural conservation with social well-being at the ends of the Earth*

### **RECENT ENVIRONMENTAL EDUCATION ACTIVITIES**

In March, Omora began the school year in Puerto Williams by initiating the course *Wetlands and Biodiversity of Navarino Island*. This continuation of Omora's 6 year environmental education activities on the island is funded by the National Environment Commission's Fund for Environmental Protection. The course is part of master's student José Tomás Ibarra's thesis concerning the impact of introduced mink on wetland birds and is being coordinated by both Tomás and Ximena Arango, Omora's local environmental education coordinator.

The course began with a questionnaire given to the students from 6<sup>th</sup> and 7<sup>th</sup> grade asking them to identify the "charismatic" and exotic species of the island. Also, at this time Tomás is working on the design and implementation of bird observatories to be constructed in the Park. These stations will be places to obtain information and see both the fauna and habitat types that make up the wetlands of the Cape Horn Biosphere Reserve.



Master's student José Tomás Ibarra of the Universidad Católica de Chile leads a group of students and teachers on a bird observing field trip at Róbalo Bay.

### **EXOTICS SPECIES PROGRAM**

Elke Schuettler, a Ph.D. graduate student from the UFZ Centre for Environmental Research, Germany, has completed another field season of her research concerning the effects of introduced mink on shorebirds in the Cape Horn Biosphere Reserve. Elke's study was recently featured in a German documentary as well. UFZ is currently trying to obtain funds to have the film translated into Spanish and English for greater diffusion. In the meantime, check out a short clip at: [www.sw-pro.tv/dok\\_01.htm](http://www.sw-pro.tv/dok_01.htm)



## YAHGAN TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)

The indigenous Yahgan community has long been under a strong acculturation process, and last year only two elder



women fluently spoke the Yahgan language. One of these ladies sadly died at the end of 2005. For this reason, a main effort of Omora's research agenda since its creation has been unstructured and semi-structured interviews recorded with members of the Yahgan community. In addition, we have collaboratively prepared educational materials based on this research, in order to contribute to the conservation of Yahgan TEK.

Based on the analysis of the interviews recorded in 2004, Francisca Massardo and Ricardo Rozzi focused on three types of handcrafts, which involved three types of environments—coast line, wetlands, and forests—to record the process in all its phases.

A book was prepared with members of the Yahgan community for communicating the value of Yahgan traditional ecological knowledge and handcrafts. With Martin González, the work centered on harpoons made of whale bones. The process involved the location of beached whales, recent and old ones, the gathering of bone pieces, cleaning of the bone, cutting of pieces, and carving three types of harpoons: simple-tip, double-pointed, and serrated harpoons, which each traditionally had different types of prey. With Julia and José González, the work centered on handcraft bark canoes made of bark from the evergreen beech (*Nothofagus betuloides*). The process involved the

selection of adequate trees, demarcation of the piece of bark without damaging the tree, extraction of pieces of bark and making of the canoe. With Julia González, Cristina Calderón, and Esmelinda Acuña (deceased in November 2005) the work centered on basketry. Baskets are woven with austral rush (*Marsippospermum grandiflorum*), and the process involved the selection of adequate wetlands, gathering of rushes, heating the stalks, and weaving with an *ami*, or bird leg-bones that are used as needles. Two main types of baskets include: *keichi* or opened-weave basket used to store shellfish, and *steepa* or close-weave baskets used to store berries.

A project from the regional government provided support for photographic recording, filming and publication of this guide which will serve to better communicate the value of Yahgan culture in the context of the Cape Horn Biosphere Reserve and its associated ecotourism activity.

In addition, an audio archive with the Yahgan names of plants, animals, and landscape features was recorded with Ursula and Cristina Calderon. With this material a workshop with children of the Yahgan Community was conducted by Cristina Zárraga en 2003-2004. The children listened to Grandmother Cristina, and they painted portraits of the recorded animals, plants and landscapes. We recorded with the Yahgan children the Spanish words for those names, and the names in English were recorded with two North American children.

With the recordings and paintings, a dictionary for children was designed as a trilingual text (Yahgan-Spanish-English) and matching voices recording in an accompanying CD. The Universidad de Magallanes became interested in this material and are

presently printing the book entitled *Hen Larnanauti, Hen Maruti Intien* (Learning, Listening to the Yahgan World). Author Cristina Zárraga is a member of this community and is the granddaughter of Cristina Calderon. Cristina has been collaborating with the Omora research, educational and conservation activities since April 2001.

The recording of Yahgan names for plants and birds have furthermore been incorporated into an educational Multimedia CD about biodiversity of the Omora Ethnobotanical Park and the Cape Horn Biosphere Reserve. The CD provides more than 500 illustrations about biodiversity, incorporating scientific and Yahgan ecological knowledge into it. The CD will be used to continue research and educational activities in August 2006.

### **SOCIAL PERCEPTIONS OF NATURE AND ENVIRONMENTAL VALUES**

Within the community of Navarino Island and the Cape Horn Biosphere Reserve, we can distinguish several different social groups: the indigenous Yahgan community, personnel of the Navy Base in Puerto Williams, long-term non-indigenous residents, civil authorities and professionals, teachers and school children. Multiple structured, semi-structured and non-structured interviews have been conducted, and during 2005 we focused mostly on the evaluation of flagship species for the Cape Horn Biosphere Reserve (a work lead by Ximena Arango), and the evaluation and characterization of nature images (a work lead by Uta Berghoefer).

Regarding the first question, the Magellanic woodpecker (*Campephilus magellanicus*) was the preferred species by all social groups and has been proposed as the **Flagship Species** for Cape Horn Biosphere Reserve. Ximena continues working as part of her Master's thesis on the research and implementation of this concept. Ximena has won a fellowship from Institute of Ecology and Biodiversity and also the Francesco di Castri Prize for her work on this topic.

Uta Berghoefer has been studying the question of people's perception of nature as part of her Ph.D. dissertation. She is looking at which aspects of nature or biodiversity people value, and which are the preferred places and landscapes in the archipelago. This research is still in its initial stages, but the preliminary answers suggest that the northern coast of Navarino Island is more frequently visited than other parts of the island. The places of Mejillones Bay, Eugenia Cove, Honda Bay and the lake close to the airport were mentioned

#### **WELCOME TO A RETURNING FRIEND!**



Gudrun Pollock, a student at the Technical University of Brandenburg, Germany, has returned to the Omora Park this year to conduct her undergraduate thesis. Gudrun first visited the Cape Horn area a year ago, and since then has worked with Mitzi Acevedo at the Universidad Andres Bello and Uta Berghoefer (Omora European Volunteer Coordinator) to design her project, which was funded by the DAAD, the Germany Educational Exchange Program. Gudrun's thesis will be to elaborate an educational marine guide for school children and also begin the work to design marine management areas for the Cape Horn Biosphere Reserve.

several times. Many of the interviewees refer to places on the north coast for leisure activities; a preferred activity is a barbecue at the beach. The lake, Róbalo Bay, the Omora Park and the surroundings of Puerto Williams are important for leisure activities for those inhabitants of Puerto Williams who do not own a car.

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### **UPCOMING OUTREACH ACTIVITIES**

#### **1) June 9-11 & 14-17:**

*Exploring and conserving the "Miniature forests of Cape Horn,"* Puerto Williams and Punta Arenas – coordinated by Ximena Arango, Nelso Navarro, Ricardo Rozzi and Shaun Russell

**General objectives:** Introduce participants to the biodiversity found in the mosses and liverworts of the Cape Horn Archipelago in order to value and take advantage of this resource in ecotourism and sustainable development.

#### **2) June 17-24 & July 1, 8, 15 & 22:**

*First responder basics for ecotourism guides* – coordinated by Sonia Pong (Chilean Red Cross) and José González (Yahgan Community).

**General objectives:** Basic instruction in first aide and CPR.

#### **3) August 10-11 & 16-18:**

*Exploring and conserving the world's southernmost forests,* Puerto Williams and Punta Arenas – coordinated by Ximena Arango, José Tomás Ibarra, Nelso Navarro and Ricardo Rozzi

**General objectives:** Inform participants about the ecology of subantarctic forests, value their importance and biological diversity in order to implement innovative themes to ecotourism.

#### **4) October 6-13:**

*Exploring and conserving the habitats of the most austral ethnic group on the planet* – coordinated by Ricardo Álvarez, Ximena Arango and Nelso Navarro

**General objectives:** This course is designed to teach participants about the archeological sites located on the north coast of Navarino Island, discuss conservation of cultural resources and integrate concepts to ecotourism narratives.

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### **FOR MORE INFORMATION CONTACT:**

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