

BICENTENNIEL PROGRAM OF SCIENCE AND TECHNOLOGY

INSERTION OF DOCTORAL RESEARCHERS IN ACADEMIA

Strengthening the UMAG's Master of Science academic team, associated with the implementation of a long-term marine-terrestrial socio-ecological research site in the Cape Horn Biosphere Reserve

POSITION:	Postdoctoral Fellow
TOPIC:	Conservation biology, terrestrial ecology, invasive species, eradication-control programs or similar
LOCATION:	Puerto Williams, Chilean Antarctic Province (Cape Horn Biosphere Reserve) Chile
CONTRACTING INSTITUTION:	University of Magallanes (UMAG)
ASSOCIATED INSTITUTIONS:	Institute of Ecology and Biodiversity & University of North Texas
WORK CONDITIONS:	Three year contract – with possible permanent contract
SALARY:	1 million Chilean pesos (approx. \$2000 USD) monthly
POTENTIAL PROJECTIONS:	After 3 years, potential full-time contract in the UMAG & interaction with centers of research excellence in Chile and international
BEGINNING OF ACTIVITIES:	September 2008
NATIONALITY:	No requirement

CONTEXT OF THE POSITION:

The Omora Ethnobotanical Park is a long-term socio-ecological research site, coordinated by the University of Magallanes in conjunction with the Institute of Biodiversity (in Chile) and the University of North Texas, the Center for Environmental Philosophy and OSARA (in the US). This is the first explicitly marine-terrestrial study site in Chile and in addition constitutes the **research, education and conservation center for the Cape Horn Biosphere Reserve (CHBR)**.

The context of this location and position will provide the selected postdoctoral fellow with a **unique opportunity** to participate in a project that allows for constant collaboration with world-class researchers and academic intuitions and in addition is a part of one of eight Centers of Scientific Excellence in Chile, supported by the Millennium Scientific Initiative (Ministry of Planning) and the Bicentennial & Basal Financing Program (Chilean Science Commission).

The postdoctoral appointment is being made available as part of a national initiative, called the "Bicentennial Program," and aims to insert Ph.D.-level scientists in academia. The position entails a 3 year postdoctoral term with a subsequent commitment of a full-time contract from the university, pending successful completion of fellowship.

JOB DESCRIPTION:

The person selected for this position will have the position of postdoctoral fellow and should collaborate in the following **lines of research**:

- i) integration of social and ecological aspects associated with the phenomenon of exotic species invasions; and
- ii) develop research that help manage invasive species in the Cape Horn Biosphere Reserve
- iii) link research to broader approaches to conservation of biological and cultural diversity

This line of research represents a priority area for science in the region and responds a need in the implementation of the Cape Horn Biosphere Reserve.

General objectives:

Develop studies that integrate social and ecological aspects associated with invasive species (specifically mink and beavers), leading towards their eradication and/or control and approaching the impact of invasion from the ecosystem perspective that includes marine and terrestrial zones.

The **specific objectives** are:

a) Conduct socio-ecological studies of invasive fauna

Priority taxa:

- American mink (*Mustela vison*)
- North American beaver (*Castor canadensis*)

Specific ecosystems considered:

- Coastal zones
- Terrestrial

Specific socio-ecological variables considered:

- Impact on coastal avifauna reproduction (mink)
- Dispersal routes and vectors (mink and beaver)
- Evaluation (social, economic and ecological) of control and eradication programs (mink and beaver)
- Economic and social impacts on ecotourism (mink and beaver)

b) Establish scientific criteria for the evaluation of control and/or eradication strategies

Specific activities considered:

- Work with the Chilean Livestock and Agriculture Service to develop joint projects regarding control and eradication that permit ecological and socio-economic evaluation of efficiency and effectiveness
- Identify areas free of invasive exotic fauna in the Cape Horn Biosphere Reserve and elaborate recommendations to maintain this condition.

The selected person should also fulfill the following **research and outreach related responsibilities**:

1. Help supervise and manage volunteers and students from national and international programs
2. Coordinate and collaborate with international postgraduate field courses (UMAG-University of North Texas) with an interdisciplinary and biocultural conservation focus
3. Provide site-based oversight of the development of associated projects (student projects, monitoring programs and data bases)
4. Participate in the development of environmental education programs for the local community
5. Link research with projects and initiatives in the area of ecotourism
6. Collaborate in the development of the graduate masters of science program at UMAG, entitled "Management and Conservation of Subantarctic Natural Resources."

The **expected results** of this position in 3 years are:

- a. Expand the present research related to invasive species to include marine-terrestrial and socio-ecological impacts, focusing on the scientific study of management programs
- b. Re-enforcement of academic collaborations and joint publications based on the long-term studies in the CHBR
- c. Define vectors and pathways of dispersion in marine environments by invasive species in the CHBR
- d. Collaborate in existing postgraduate courses at the UMAG (year 1-2) and create a new postgraduate course in the UMAG that focuses on the ecological and economic impacts of invasive species (year 2-3)
- e. Map the invasion risk for the CHBR to maintain areas free of exotic species, such as Horn Island
- f. Consolidate monitoring programs for coastal avifauna and invasive exotic fauna in the LTSER, in collaboration with the Chilean Agriculture Service, the Chilean Forestry Service, the Tourism Service, and other agencies.

BASIC QUALIFICATIONS:

- Ph.D. with 2 years of experience in conservation and ecological field work or equivalent combination of education and experience
- Proven ability to collaborate in interdisciplinary projects linked with public and private sector
- Proficiency in English and Spanish is required and a good ability to communicate

REQUIERED KNOWLEDGE:

- Experience in conservation at Latin American field sites and ability to relate well with the local community
- Demonstrated ability in development and management of field studies
- Experience leading teams and motivating groups of people to achieve goals and manage complex projects and budgets
- Proven ability in interpersonal communication and conflict resolution
- Flexibility and adaptability
- Willingness to participate in diverse programs organized by the Omora Park

SKILLS:

- Resolve problems involving multiple researchers and projects
- Anticipate, diagnose and resolve complex issues that require creative solutions
- Interpret regulations and rules, evaluate information and modify processes to adapt them to changing situations
- Manage and prioritize multiple tasks
- Work under pressure
- Capacity to resolve tension between colleagues
- Capacity to build cooperative relationships with diverse groups, including the local community, government authorities, members of the board of directors and the general public

REQUIREMENTS:

- Drivers license
- Physical condition that permits working under variable climatic conditions in a remote site
- Be able to work in difficult terrain and with a certain level of risk
- Ability to travel
- Work occasionally on weekends and extra hours

OPPORTUNITIES:

The CHBR is considered one of the world's last pristine wilderness areas, which is currently threatened by an increase in connectivity and business opportunities related to tourism. The person contracted for this position will have the opportunity to participate directly in this initiative of global significance and world-class quality. The selected candidate, for example, will contribute to the Scientific Advisory Committee of the CHBR, will develop and participate in basic and applied science projects that support the holistic use and management of the subantarctic archipelago, and will aid in the socialization of these results in the broader community.

In addition, this location's relevance to the globe is as significant as that of the Galapagos Islands in terms of science, history and conservation. Being selected for this position is a unique opportunity for the postdoctoral fellow to professionally and personally in association with one of eight Centers for Scientific Excellence in Chile, supported by the Millennium Scientific Initiative (Ministry of Planning) and the Bicentennial and Basal Financing Programs (Chilean Scientific Commission).

The home base of the position is Puerto Williams, which is the capital of the Chilean Antarctic Province, located on the north coast of Navarino Island (55°S). It has a population of 2,200 inhabitants and while it has all basic services, it is still considered remote (accessible by a 1.5 hour plane ride; 5 flights per week). The island is provisioned weekly by a ferry from Punta Arenas, the regional capital and the location of the main campus of the University of Magallanes. The region is known for its extraordinary beauty and the world's cleanest air and water. Heating of homes on the island is done with wood stoves, and housing conditions are basic, but comfortable.

For couples, there are opportunities for the partner to participate in ecotourism and/or educational activities conducted by Omora Ethnobotanical Park.

SEND CV, COVER LETTER AND 2 LETTERS OF REFERENCE TO:

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RELATED WEB SITES:

www.umag.cl/williams, www.omora.org, www.ieb-chile.cl, www.osara.org, www.chile.unt.edu,
www.cep.unt.edu