

DARWIN INITIATIVE FOR THE SURVIVAL OF SPECIES

APPLICATION FOR GRANT

162161126

Please read the accompanying Guidance Note before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Applicants are asked not to use the form supplied to cross refer to information in separate documents. The space provided indicates the level of detail required but you may provide additional information on a separate sheet if necessary. You are asked also to complete the summary sheet attached at the end of this form. Although you may reproduce this sheet in a reasonable font, you should not expand it to more than an A4 sheet as additional information will not be taken into account.

1. DETAILS OF APPLICANT

1.1 Name of organisation applying

Institute of Zoology, Zoological Society of London

1.2 Address for correspondence

[Redacted address]

1.3 Person who may be contacted about this application, and position in organisation.

Dr Helen F Stanley (Research Fellow, Conservation Genetics Group)
or
Dr Michael Bruford (Head, Conservation Genetics Group)

1.4 Telephone and FAX numbers

[Redacted telephone and fax numbers]

1.5 Nature of the organisation (eg is it an academic institution, a registered charity, company limited by guarantee?)

The Institute of Zoology is the research division of the Zoological Society of London (registered charity No, 208728) and a grant-aided Institute of the University of London.

1.9 How did you learn about this Initiative?

From previous Darwin grant holders at the Institute and elsewhere.

1.10 Geographical coverage of the organisation as a whole.

International

1.11 A brief description of the organisation's recent achievements. (Please note that, while short pamphlets may be useful, the Department does not wish to receive books or lengthy reports.)

Over recent years the Institute of Zoology has developed into a centre of excellence in conservation biology, recognised internationally. It currently employs more than 60 full-time scientists and runs field- and laboratory-based research projects in Africa, South America, the Middle East and Europe.

Key areas of research include the application of genetic analyses to understand and quantify biodiversity (from the level of communities through to species, populations and individuals), factors affecting declining populations, the epidemiology and control of wildlife diseases (eg canine distemper in Tanzanian lions) and the development and use of assisted reproduction techniques in conservation breeding programmes. Results are applied through improved animal management, breeding and husbandry and by providing a sound scientific basis for decisions concerning conservation policy and legislation.

Institute staff have recently led the process of developing improved criteria for categorising threatened species, now adopted by the World Conservation Union (IUCN). The Institute has been involved in successful animal reintroduction programmes eg. Sand and Mountain gazelles in Saudi Arabia. Together with the Royal Veterinary College, the Institute now runs an M.Sc. course in Wild Animal Health which trains veterinarians from developing countries.

2.3 Which overseas institutions, if any, will be involved in the project? Give the names of individuals as well.

Peruvian Institutions

1) Instituto Veterinario de Investigaciones Tropicales Y de Altura (IVITA)

Faculty of Veterinary Medicine, San Marcos University, Lima (FMV)

IVITA is a research institute, part of, and staffed by professors of FMV.

2) Consejo Nacional de Camelidos Sudamericanos (CONACS)

3) Sociedad Nacional de la Vicuña

Individuals

Dr Felipe San Martin, Director General, IVITA

Raul Rosadio, Professor, Department of Animal and Public Health, IVITA/FMV

Dr Jane Wheeler, Visiting Professor, IVITA/FMV

Dr A Martinez (President) and D Hoces (Technical Director), CONACS

C Espinosa (President), Sociedad Nacional de la Vicuña

2.4 How has the need for the work been identified?

Under the government of A. Fujimori, conservation policy has shifted from protectionism to 'presumed' sustainable utilization of camelids. Peruvian law recently passed both ownership and responsibility for vicuña and guanaco conservation to campesino communities, on whose lands the animals live, together with the right to shear and sell the fibre. The high value of vicuña fibre (\$900 per kg raw) and potential value of guanaco fibre (\$400 per kg) means that there is considerable pressure to implement ranching programmes to facilitate shearing and increase fibre production. CONACS has been highly successful in establishing the legal framework for these changes but it is not a research organisation. Therefore, since i) there is a critical lack of information on the extent and distribution of genetic diversity in wild camelids and ii) these threatened populations are now coming under increased human management, the need exists to fully assess the diversity present and consider the best conservation strategy.

2.5 Will the project include an element of training? Please indicate how many trainees would be involved and from which countries. Would those trained then be able to train others? Where appropriate give the length of any training course. Broadly how many local people will be involved? Give details of any follow-up work with the trainees after the end of the training.

An important component of the project will be a 12 month training of one Peruvian biologist in genetic techniques (at Institute of Zoology) which can then be applied in Peru. Through provision of an academic position for the trainee by San Marcos University, to be taken up in the third year of the Darwin project, they will then be able to train further researchers allowing full technology transfer. Local people involved will number at least 5 closely associated with the project and many more (including campesinos) with animal sampling. Early in the project, the UK technician will spend 2-3 months at the IVITA/FMV laboratories instructing in experimental techniques. During the final months, one UK collaborator will visit IVITA/FMV and confirm that the genetic techniques are in place, follow up on progress of the trainee since returning to Peru, resolve any difficulties and consolidate future plans for conservation strategy.

2.7 Give the proposed starting date and duration of the project.

1st April 1997 for three years

2.8 Is this a new project or the continuation of an existing one?

This is a new project but arises from an established collaboration.

2.9 Do you know of any other individual/organisation carrying out similar work? Give the details of the work, explaining the similarities and differences.

No similar research is being carried out to investigate genetic variability of wild Peruvian camelids. We are collaborating with Argentinian researchers on study of genetic diversity and viability of guanaco populations in Patagonia. Relevant ecological studies in Argentina and Chile on whether sustainable utilisation/ranching is compatible with vicuna survival and welfare (WCRU, Oxford).

3. MONITORING AND EVALUATION

Describe how progress on the project will be monitored and evaluated in terms of achieving its aims and objectives, both during the lifetime of the project and at its conclusion. How would you ensure that it achieves value for money? What arrangements will be made for disseminating results? If applicable, how will you seek the views of clients/customers?

Dr Stanley will provide regular (normally daily) supervision of the project in London. Research goals for specific time periods will be set at the outset and progress assessed, both in London and Peru, at 2 monthly intervals. Project discussions will occur on a weekly basis. Annual reports will be prepared with the final report containing recommendations for future research and conservation strategies. Results will be published in English and Spanish in refereed scientific journals and in more popular articles/press and presented at relevant meetings. We have attempted to achieve good value for funds requested by planning optimal use of resources currently available as well as new personnel in Peru and London, minimising consumable costs whenever possible, maximising data retrieval from the samples collected and providing the means for this, and similar projects, to continue in Peru in future.

4.4 Briefly describe the arrangements envisaged for meeting the costs of continuing your project beyond any period of Darwin Initiative funding, if appropriate. A clear exit strategy must be provided.

1) San Marcos University will provide a position for the Peruvian trainee to support ongoing work in Peru.

2) CONACS will provide finance for future genetic screening in Peru; they are currently setting up 1000 hectare pens in Pampas Galeras reserve (to facilitate round up for shearing) and the impact of this ranching approach on genetic diversity in subsequent generations needs to be monitored.

3) The Inca Group and Mitchell & Co. (the two largest processors of camelid fibre in Peru) have previously contributed to our project and have indicated their interest in supporting our ongoing genetics research.

5. EXPENDITURE

5.1 Please state gross expenditure on the programme of work (see 2.6). Please work by financial year (defined as April to March), using 1997/98 prices throughout - do not include any allowance for assumed future inflation. Indicate salary costs on Table A and total costs on Table B. For programmes of less than 3 years' duration, enter 'nil' as appropriate for future years. It would be helpful to highlight the areas for which Darwin funding is requested.

Table A

	1997/98	1998/99	1999/2000
Number of Staff - list each member.			
a) UK			
1) Technician (experienced, UK salary)	1	1	1
2) Peruvian trainee (in UK)	-	1 (6 months only)	1 (6 months only)
b) collaborators			
Peruvian technician (in Peru) (Peruvian salary)	1 (6 months only)	1 (6 months only)	-
Job titles and duties UK technician, Peruvian technician Trainee technician	-training Peruvians in lab techniques, screening samples -help sampling/tissue DNA extraction, test experiments/year 1 -will assist in screening samples / data analysis		
% of time each would spend on this work	100%	100%	100%
Cost of this work	30,618	37,338	35,338

6. CERTIFICATION

On behalf of the trustees/company (delete as appropriate) ~~Zoological Society of London~~ I apply for a grant of £147,894 in respect of expenditure to be incurred in the financial year ending 31 March 1998 on the activities specified in paragraph 2.6.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct.

I enclose a copy of the organisation's most recent audited accounts and annual report.

Name (block capitals) HELEN F. STANLEY.....

Position in the organisation RESEARCH FELLOW.....

Signed  Date 29/11/96.....

Please return completed form to the Department of the Environment, A304 Romney House, Marsham Street, London SW1P 3PY.

Department of the Environment
September 1996