



Newsletter of the Re-introduction Specialist Group of IUCN's Species Survival Commission (SSC)

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EDITORIAL: by Dr Michael Maunder, RSG Plants Section Chairman

Plant re-introductions are, in contrast to animal projects, a relatively understudied and little debated topic. This issue of RE-INTRODUCTION NEWS is largely devoted to plants, being a follow-up to the Kew Conservation Conference "From Specimen to Habitat Management" held in London from 1-5 Sept 1991.

About 120 delegates from over 20 countries gathered at the Froebel Institute to hear a varied group of speakers review the conservation potential of botanic gardens, with special focus on plant re-introductions and habitat restoration. The range of speakers reflected the conference organisers' wish to look beyond the traditional activities of botanic gardens and to utilise the skills of other disciplines.

The conference, held under the aegis of the Kew Conservation Committee, served to bring together a potent combination of speakers and delegates. Highlights included Eric Menges of the Archbold Biological Station, USA, examining stochastic threats facing small populations and MVP theory with reference to botanic gardens' capacity to hold endangered species.

Don Falk of the Center for Plant Conservation (CPC), St Louis, USA, expanded upon the concept of integrated conservation which underpins the future of botanic gardens' conservation activities. With multiple threats to biodiversity, the most effective strategy is one that capitalises on the strengths of differing organisations and techniques such as re-introduction and restoration. This strategy was further illustrated in presentations made by Kingsley Dixon of King's Park and Botanic Garden, Perth, Western Australia, and Peggy Olwell of the CPC. Re-introductions were reviewed in the botanical context by Mike Maunder, followed by a zoological point of view from Alison Wilson, both of the RSG.

One of the most inspiring talks was made by Steve Packard of The Nature Conservancy, Illinois, USA, looking at the restoration of highly degraded and fragmented prairie remnants. The spectacular results and ingenuity illustrated in raising funds and organising volunteers for large scale habitat restoration were a lesson to many.

Specific to re-introductions were presentations made by Mike Fay, Royal Botanic Gardens (RBG), Kew, who looked at the role of *in vitro* propagation. The possibility of salvaging spores from extinct pteridophyte populations was examined by Adrian Dyer of the University of Edinburgh. Papers were presented on the conservation of meso-american crops, and southern African wild plant resources threatened through over-harvesting. Other papers examined botanic gardens' activities in tropical Africa and Mexico.

The meeting served to consolidate links between organisations involved with plant re-introductions, and acted as a valuable recruiting ground for the plants group of RSG. The conference was followed by a two-day workshop looking at draft guidelines on plant re-introductions for botanic gardens, held as a collaboration between the RBG Kew, RSG, and the IUCN Botanic Gardens Conservation Secretariat. From discussions during the conference and workshop it was apparent that although botanic gardens will have a fundamental role in plant re-introductions, they can only do so in full collaboration with a variety of other organisations, the most important being the land management agency.

For full details of the conference proceedings, please contact Dr Mike Maunder, Royal Botanic Gardens, Richmond, Kew, Surrey TW9 3AB, UK.

RE-INTRODUCTION UPDATES



The Abruzzo chamois, back on the Majella Massif.

About a dozen Abruzzo chamois (*Rupicapra pyrenaica ornata*) were released in July onto the Majella Massif, Italy, with the help of WWF-Italy, the Abruzzo National Park, and the Italian Army. The chamois were bred in captivity in WWF-Italy's Oasis (Wildlife Refuge) at Lama dei Peligni. This was the first phase of an attempt to repopulate the Majella, where the subspecies had been extinct for several decades following intensive hunting and sheep-rearing. The total residual population of Abruzzo chamois is only 400-450 individuals, up from 40 in 1949 and 150 in 1969, most in the Val di Rose of the Camosciara Massif with a further 20 in the Faunistic Area of Bisegna, Abruzzo National Park.

For the complete success of the population recovery, which will include a re-introduction on the Gran Sasso Massif, it is necessary that these important Apennine zones be properly safeguarded with the creation of new parks and protected areas; the first step was on 12 July by the creation of the Regional Natural Reserve of Eastern Majella.

From a WWF-Italy press release, 9 July 1991

Rhino re-introduction programme in Dudwa National Park, India

Once widely distributed in the Uttar Pradesh terai from the foot of the Hindu Kush to Burma, the great one-horned Indian rhinoceros (*Rhinoceros unicornis*) was wiped out from much of its former range by over-hunting, habitat fragmentation, swamp reclamation, overgrazing by livestock and uncontrolled fires and floods. The last rhino in Pilibhit district near to the present Dudwa National Park was shot in 1878.

Present rhino populations are restricted to seven reserves in Assam and Bengal, India, and the Royal Chitwan N.P., Nepal, with the major populations in Kaziranga N.P., Assam (1080) and Royal Chitwan N.P. (375). The remaining populations survive in small, insecure pockets with a doubtful future. These include about 60 rhinos in Pobitora Sanctuary (16 sq.km.) which represents the highest density of rhinos wandering widely in surrounding agricultural areas.

In spite of protective measures and efforts by field managers, persecution of the animals continues due to the very high price of horn on the illegal market. In Kaziranga N.P. between 1983 and 1989, 235 rhinos were lost to poachers. In the first two months of 1990, 16 were killed. In Jaldapara Sanctuary, W. Bengal, the rhino population has been reduced from 80 to 30 in the last two decades, and the Laokowa population has been totally wiped out.

The first experimental re-introduction of the Indian one-horned rhino into Dudwa N.P. took place in 1984. There were initial setbacks with the loss of two cows, (one due to stress, the other to an accident) out of a nucleus of two males and three cows translocated from Assam. In 1985, four more females were translocated from Nepal to the rhino re-introduction area (25 sq.km.) in Dudwa.

In 1988, the two bulls fought continuously, with the result that the dominant bull had to be separated from the population and released in an enclosure, where he eventually died of haemorrhagic septicaemia. In 1987, the first evidence of breeding was noticed, but the calf was found dead and the cause of death not confirmed.

In 1989, four calves were born to the four females from Nepal. One calf, a male, died of pneumonia in January 1990, at one month of age. Although such mortality is normal in the wild, it represents a serious loss to the translocated population, which stands at five adult cows, one bull and three calves. Further translocations are needed to ensure the future of the population.

Contributed by Dr. S.P. Sinha, Wildlife Institute of India.

Idmi in Saudi Arabia

Indigenous ungulates in the Kingdom of Saudi Arabia have suffered in recent years from hunting and over-grazing of their natural habitats. Two species, the oryx (*Oryx leucoryx*) and the afri or Saudi gazelle (*Gazella saudiya*) are extinct in the wild and the others are greatly restricted in numbers and range. Captive breeding programmes were set up in the Kingdom by the National Commission for Wildlife Conservation and Development for three ungulate species, which are now the subjects of re-introduction programmes.