Vth World Conference on Birds of Prey and Owls

4 - 11 August 1998 South Africa

World Working Group on Birds of Prey and Owls

Raptor Conservation Group . Vulture Study Group

Endangered Wildlife Trust

Inc. 3rd International Raptor Biomedicine Conference

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ABSTRACTS

5th WORLD CONFERENCE

ON BIRDS OF PREY AND OWLS

Incorporating the 3rd International Raptor Biomedicine Symposium

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Midrand, Johannesburg, South Africa, 4 – 11 August 1998

ABSTRACTS OF PRESENTATIONS

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Over half the total raptor population consists at present of two rare species, namely Osprey and White-tailed Eagle. Numbers of Black Kite, Common Buzzard and Kestrel decreased 40% to 80%. The Hen Harrier disappeared while the Marsh Harrier reappeared and occupied third position among the most numerous raptors. There are reasons to suppose that a widely distributed forest environment modified by economic development is favourable for the common raptors. At the same time, within some protected areas restored over the past half-century to their original "pre-human" state, conditions are proving more suitable for some currently rare raptors.

Nick Mooney **(Oral)**

Appearances vs Performance: Managing endangered Tasmanian Wedge-tailed Eagles *Aquila audax* in Forestry Operations

Notification of nest habitat must be given before operations. Coupes are prioritised for searching on their potential for nests (area, alternatives, nearest nests). Models predicting where nests might be must be regional and use data from almost as many nests as the areas contain. Coupes should be checked anyway because a nest missed can mean a disruptive 'rescue'. The pace and dispersion of forestry means it is difficult to have suitably experienced personnel search all areas. The fate of 83 nests was examined in how they were found, the success of conservation and the inconvenience/cost. The further before (in time and space) an operation a nest was known and the the less urgent a rescue, the better its conservation and generally the less disruption to operations. Disturbed eagles may rebuild elsewhere and the mutually destructive process repeated. Private landowners can claim compensation for imposed conservation measures but the process is cumbersome, creating cynicism. Exascerbating this, more than 10% of the property must be involved otherwise it is considered a 'duty of care'. To reach its potential, conservation on private land had to be embraced by the landowner.

L. F Oliveira and F. Teixeira **(Oral)**

Raptors and Education: a model in Portugal

Portugal suffered a long period of dictatorship (ca. 50 years), which inhibited a normal scientific development. In spite of being integrated in the European Community, and enjoying a quick economic growth, areas such as ornithology and birdwatching, have taken second place Some steps have been taken but in a non-structured way. The development of the activities is not planned in globally. Moreover, we must note that the reforms in education have not contributed to overcoming the general indifference towards ornithology.

The new programme by the Ministry of Science (Living Science), which informs schools about experimental science, allows a new model of divulging information on ornithology in general and of birds of prey in particular.

With the financial support given by this programme it is possible to have attractive material (radiotelemetry, telescopes, GPS, software, microscopes, videocameras in nests, etc.) in basic courses on ornithology and birds of prey. The students and beginners are involved in study projects and in preserving birds of prey also using these materials.

As a result of our efforts and the methods used, more people seem to take a greater interest and participate more.

Luis Palma, Nuno Ferrand, Leonor Cancela, Pedro Beja, Bárbára Fraguas, Miguel Pais, Pedro Cardial, Thomas Guillemaud, Diego Figueiredo and Luis Cancela de Fonseca **(Oral)**

Conservation Studies on Bonelli's Eagle *Hieraaetus fasciatus* in Portugal

A study of the biology, ecology and demography of Bonelli's Eagle *Hieraaetus fasciatus* began in Portugal in 1992 Breeding success, diet, habitat selection and use, population structure and human impacts are being investigated throughout the species' range in Portugal, along with studies about diseases, population dynamics, recruitment and adult turn-over carried out in the south-west of the country. On-going genetic analysis (protein and DNA), aimed at evaluating the degree of demographic/genetic relationships between and within populations, are currently expanding to the whole country as well as to Spain and France. So far, 4 polymorphic markers have been detected. About 100 breeding pairs (over 10% of the European population) occur at various densities over a range of contrasting habitats, from rocky open habitats to cliffless woodlands and steppe-like plains. Regional trends vary from a slow decrease to stability, or even a slight the population was censussed regularly and studies on ecology and biology have been undertaken. They proved a successful reintroduction with an increasing population of Pygmy Owls.

The film by Ingrid and Claus König gives an overview of the ecology and reproductive biology of Pygmy Owls in a mountainous area affected by acid rain since many years.

João Rodrigues and José Cavaco **(Poster)**

The Eagle Owl *Bubo bubo* distribution in Portugal: Preliminary Results

The Eagle Owl is considered a rare species in Portugal. Although there are very few studies of the Portuguese population, it is possible to detect a regression in its numbers. With the aim of estimating the real status of this species in Portugal, the Scientific Association for the Conservation of Birds of Prey (AÇOR) started in 1996 a study on this subject in the region of Santarém (central Portugal). The methodology used involved both nocturnal and diurnal sound emissions of males, females and chicks as well as interviews with local residents, especially hunters and shepherds. The pellets found were collected and analysed in order to assess the diet, which was mainly composed of rodents, hedgehogs and birds. The chicks' development was also followed from newly-hatched to leaving the nest. Sixteen occupied territories were identified, with only four successful nestings. The reproductive period occurred between December and February, each nest with three eggs hatched and with only one to two fledglings.

Munir Virani **(Oral)**

Ecological aspects of Sokoke Scops Owl *Otus ireneae*

A year-long ecological study of the vulnerable Sokoke Scops Owl *Otus ireneae*, a near-endemic species found in Kenya's Arabuko-Sokoke forest and the foothill forests of Tanzania's eastern Usambara Mountains, was conducted in 1993. The aim was to understand the owls' ecological requirements so that a rational conservation plan could be formulated to ensure their survival. An elicited call survey was conducted to determine the owls' distribution and density while radio-telemetry was used for gathering data on roost-sites and home range. Pellets were also collected from prominent roosts to determine the owls' diet. In the Arabuko-Sokoke forest (ASF),the owls were mainly found in the dense Cynometra woodland where they occurred at densities of 7 pairs/km^2. They occurred at lower densities in adjacent sub-optimal habitats. More data are needed to determine their population status in sub-optimal habitats. The total owl population in the ASF was estimated at 1000 pairs.

The owls' favoured selection of roosting sites close to the edge of their home ranges. Ninety-seven percent of the roosts (n=33) were thin to medium-sized vines. The dominant roost-tree for all owls was *Cynometra webberi* (93.9%). Females were found to be 20% significantly heavier than males. No evidence was found to link the different colour morphs with sex. Owl pellets contained predominantly insect segments and appendages implying an insectivorous diet. Prey parts not found in the pellets, particularly those of soft-bodied prey, could not be accounted for. Coleoptera comprised 91.4% of identified remains. We found the call survey technique using transects to be a quick and reliable method for estimating owl densities. We recommend that future studies be focused on population dynamics and monitoring.

Jeff Watson **(Poster)**

How many Seychelles Scops Owls are there?

The endemic Seychelles Scops Owl *Otus insularis* was reported extinct in the 1950s, and was rarely seen by ornithologists for over a decade following its 'rediscovery' around 1960. It has only ever been recorded from the island of Mahé although suitable habitat exists on several other Seychelles islands. A tape recording of the Scops Owl call was obtained in 1975 and was used to locate pairs of owls by eliciting response to playback of recordings. Over a two year period mated pairs were consistently located by this method in 8 places along a series of tracks and roads in the mountains of Mahé. Typical Scops Owl habitat was dense secondary forest growing in deep ravines and river valleys where there were accumulations of large boulders. Based on the average distance between these pairs, and extrapolating from the known extent of suitable habitat, the population on Mahé was estimated to be a minimum of 80 pairs. During a follow up study in October 1994 the original 8 study localities were checked and in all places a pair of owls was detected within 100m of sites occupied in 1975/76.

Michael Wink and Petra Heidrich **(Oral)**

Progress in the Molecular Systematics of Owls

DNA was isolated from blood, feathers or muscle tissue from c. 270 individuals, covering 13 genera and c. 80 taxa. The mitochondrial cytochrome b gene was amplified by PCR and sequenced (1060 bp) for c. 150 individuals. The aligned sequences were analyzed by Maximum Parsimony (MP), Neighbour Joining (NJ) and