

SESSION: POSTER (117)

**BREEDING SUCCESS AND HABITAT CHARACTERISTICS OF MARSH HARRIERS *CIRCUS AERUGINOSUS* IN INTENSIVELY CULTIVATED LANDSCAPES**

VAN DEN BERGE, K.<sup>1</sup>, ANSELIN, A.<sup>2</sup>, CASTELIJNS, H.<sup>3</sup>, DE BRUYN, L.<sup>2</sup>, LENS, L.<sup>4</sup>, T'JOLLYN, F.<sup>2</sup>, PAELINCKX, D.<sup>2</sup>

<sup>1</sup>c/o Terrestrial Ecology (Terec), Ghent University, Ledeganckstraat 35 B-9000 Gent, Belgium. Email: koen\_vdb\_1@hotmail.com

<sup>2</sup>Research Institute for Nature and Forest (INBO), Kliniekstraat 25, B-1070, Brussel, Belgium. Email: anny.anselin@inbo.be, anny.anselin@inbo.be

<sup>3</sup>Raptor Working Group Zeeland, Marollenoord 10, 4553 CP Philippine, The Netherlands. Email: castelijns@zeelandnet.nl

<sup>4</sup>Terrestrial Ecology (Terec), Ghent University, Ledeganckstraat 35 B-9000 Gent, Belgium. Email: Luc.Lens@ugent.be

The Marsh Harrier *Circus aeruginosus* is listed on Annex I of the EU Birds Directive and thus requires appropriate conservation, in particular of its most suitable breeding areas. Moreover, this species is an interesting study object as it seems to have found a way to cope with agricultural intensification. In some regions, a varying part of the population has shifted its breeding habitat from reed *Phragmites australis* to cereal fields.

We studied the relationship between breeding success and habitat characteristics in 2011 and 2012 at three spatial scales for reed-breeding birds (N=82), and at two scales for cereal field breeders (N=30) in their breeding area in northwest Belgium and the adjacent southwestern part of The Netherlands. This area consists mainly of intensively cultivated land. The first and smallest scale includes variables regarding nest site quality. We measured nest height, reed density and age near the nest, reed height, and shape of the breeding polygon. The second scale we look at comprises the breeding area. Here, we calculated the relative percentage of the broad vegetation types present e.g. pure reed, mixed reed, shrub and trees. For cereal breeders, we note the type of crop. The third spatial scale is the landscape. Here, we consider a circular area within a radius of 3 km around the nestsite. Area of agricultural crops (possible foraging area) and their spatial distribution relative to each other are important variables. As a possible proxy for anthropogenic influences we calculated the proximity to the nearest road and village, and the amount of urban area. Also other habitats like water surfaces and forests were incorporated in these analyses. A second theme of this study is an analysis of the long time use of the different breeding areas. We used data regarding nesting locations ranging from 1994 up to 2012. We examined whether a shift in breeding area/biotope could be induced by a (recent) change in the environment, in terms of agricultural crops.

Our study is part of a more general project on the ecology of the Marsh Harrier in the area, the results of which could provide important guidelines for conservation management.