

NEST SITE SELECTION IN THE HAMERKOP IN LESOTHO

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Abstract. During the years 1998–2001, 26 occupied Hamerkop nests were found in Lesotho, a mountainous country in southern Africa, which is avoid of indigenous trees. All nests were situated in a close proximity to water and human settlements. Most nests were located in exotic trees, such as *Salix babylonica* (42.3 %), *Populus canescens* (26.9 %) and *Eucalyptus spp.* (7.7 %). Two unusual nesting sites were recorded: one nest was located on a rock projection and other one in a window of a mill building. Nest height ranged from 2 to 16 m ($x = 7.7$, $n = 26$). Nest sites in lowlands were significantly different from those in the highlands. Two cases were recorded where Hamerkop nests were usurped by *Tyto alba*.

Key words: Hamerkop, *Scopus umbretta*, South Africa, breeding, nest.

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Выбор мест гнездования молотоглавом в Лесото. - Г. Копий. - Беркут. 14 (1). 2005. - В 1998–2001 гг. в Лесото, гористой стране на юге Африки, было найдено 26 заселенных гнезд молотоглава. Все они располагались недалеко от воды и поселений человека. Большинство гнезд находились на экзотических деревьях, таких как *Salix babylonica* (42,3 %), *Populus canescens* (26,9 %) и эвкалипты (7,7 %). Отмечены два необычных случая гнездования: на выступе скалы и в окне мельничной постройки. Высота расположения гнезд колебалась от 2 до 16 м ($x = 7,7$, $n = 26$). Места гнездования отличались на равнине и в горах. Наблюдались два случая захвата гнезд молотоглава сипухой.

INTRODUCTION

The Hamerkop (*Scopus umbretta*) is widely distributed all over the Afrotropical region. Everywhere it is associated with water, but may also occur beside temporary rivers and other water bodies (Brown et al., 1982; Maclean, 1993). It is well known from extraordinary huge domed nests, which are usually located on larger trees (Brown et al., 1982). This species is also common in Lesotho, a mountainous country, which although abundant in water, is avoid of indigenous large trees (Ambrose et al., 2000; Ambrose, 2005). Since colonial times, many exotic trees were however planted in lower parts of this country. It was therefore interesting to investigate nest preference in this species in such altered landscape.

STUDY AREA AND METHODS

For the purpose of this study Lesotho was divided into two zones: lowlands and highlands. The lowlands are defined as falling below 1800 m a. s. l., while highlands above this

altitude. The lowlands include therefore the foothills and the Senqu Valley. So defined, the lowlands occupy one fourth of the country's total surface of 30 300 km². Most of the lowlands are classified as the *Cymbopogon-Themedra* Grassveld (Highveld Grassland), while the highlands as *Festuca-Themedra* Grassveld (Afromontane and Afroalpine Grasslands). The lowlands are abundant of both indigenous and exotic trees (Ambrose et al., 2000). Most common exotic tree species include the gum tree (*Eucalyptus spp.*), aspen (*Populus canescens*), Lombard poplar (*P. nigra 'italica'*), balsam poplar (*P. balsamifera*), blue wattle (*Acacia dealbata*), weeping willow (*Salix babylonica*), pines (*Pinus spp.*), cypress (*Cupressus spp.*), cedar (*Cedrus atlantica*). The indigenous species are mostly in forms of shrubs, while the exotic ones quite often attain large sizes. In the highlands, there is a scarcity of trees, and only in large river conyones the weeping willow and aspen may attain larger sizes.

Nests were searched for during the years 1998–2001 over several places in the lowlands and in the highlands of Lesotho. For each found nest, tree species was identified and nest height



Nest sites of the Hammerkop in the lowlands and highlands of Lesotho
 Места гнездования молотоглава на равнине и возвышенностях в Лесото

Nesting site	Lowlands		Highlands		Total	
	N	%	N	%	N	%
<i>Salix babylonica</i>	8	42.1	3	42.9	11	42.3
<i>Salix</i> spp.	2	10.5	1	14.3	3	11.5
<i>Populus canescens</i>	6	31.6	1	14.3	7	26.9
<i>P. balsamifera</i>	0	0.0	1	14.3	1	3.8
<i>Eucalyptus</i> spp.	2	10.5	0	0.0	2	7.7
Rock cliff	1	5.3	0	0.0	1	3.8
Mill building	0	0.0	1	14.3	1	3.8
Total	19	100.0	7	100.0	26	100.0

estimated. Only occupied nests were taken into account.

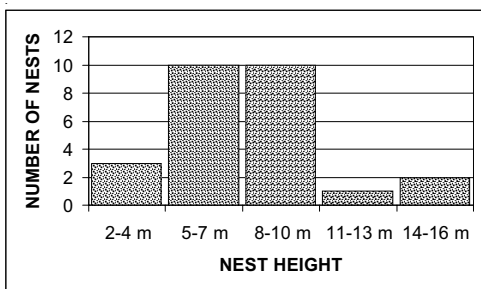
RESULTS AND DISCUSSION

All Hammerkop nests in Lesotho were located in a close proximity to water, and often close to human settlements. In highlands, all nests were located on river banks, while in lowlands roughly half of them were found in a proximity of small dams, and the remaining along rivers.

Most nests (92.3 %) were located on trees. Willows were found to be highly preferred both in lowlands and highlands (Table). Most of these willows were represented by the weeping willow, which is common exotic tree, very well adapted to grow on river banks both in Lesotho lowlands and highlands. Poplars,

mostly the American aspen, were also used quite often. Among other tree species, Hammerkop nests were only found in the gum tree. Two unusual nesting sites were recorded, one nest near Nazareth, Maseru district, was located on a rocky projection, c. 2 m above the ground, while the other one was built in a window of a mill building at Semonkong, Maseru district. The Hammerkop is known to nest on trees, ledges, rocks and even on the ground, but was not reported as nesting on man-made structures (Brown et al., 1982; Maclean, 1993). No nests were found on coniferous trees, although they are abundant in lowlands. Also no nest were found on dead trees standing in water, a situation which is preferred in other parts of Africa (Brown et al., 1982). In Bloemfontein area, Free State province, three nests were recorded on poplars, weeping willows and gum trees (Kopij, 2001b). In the same province, in Bethlehem area, all nine nests found were located on weeping willows (Kopij, 2002).

Nest sites in Lesotho lowlands and highlands significantly differed ($\chi^2 = 47.4$, $df = 2$, $p < 0.01$). Two Hammerkop nests, one on a weeping willow at Roma, and the other on the gum tree at Qacha's Neck) were usurped for breeding by the Barn Owl (*Tyto alba*). Brown et al. (1982) listed six other bird species, genets (*Genetta* spp.) and even monitors and large snakes using Hammerkop nests.



Nest height in the Hammerkop.

Высота гнездования молотоглава.



Nest height ranged from 2 to 16 m, most were located between 5 and 10 m (Fig.). Mean nest height was 7.7 m ($n = 26$). In other regions of Africa, nest height ranged from 1 to 20, with most located also at 5–10 m (Brown et al., 1982).

In most nesting sites found in Lesotho only one breeding pair was recorded, but around a small oxidation dam surrounded by weeping willows on Roma campus, Maseru district, as many as three nests with chicks were active in the same time in some years (Ambrose, Maphisa, 1999; Kopij, 2001a). A similar case of colonial nesting of five pairs on 1 ha was recorded by Van Ee (1977) in Bloemfontein Zoological Garden.

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Замітки	Беркут	14	Вип. 1	2005	58
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ВЕСЕННИЕ РЕГИСТРАЦИИ СТЕПНОГО ЛУНЯ НА СЕВЕРЕ УКРАИНЫ

Spring records of Pallid Harrier in the North of Ukraine. - S.V. Domashevsky, K.A. Pismenniy - *Berkut.* 14 (1). 2005. - This species is only a rare migrant in northern Ukraine. Three records in Kyiv and Chernigiv regions in 2004 and 2005 are described. [Russian].

Степной лунь (*Circus macrourus*) на севере Украины является редким видом, встречается во время миграций. О весенних регистрациях этого вида упоминал В.М. Зубаровский (1977), который наблюдал интенсивный пролет степного луна 23.04.1954 и 15.04.1956 г. в поймах Днепра и Десны в окрестностях Киева. Также в весенний период степной лунь регистрировался в Черниговской области возле г. Нежин 1.04. 1973 г. (Марисова и др., 1991) и 11.04.1993 г. (Кузьменко, 1996).

В ходе изучения миграции хищных птиц в исследуемом регионе нами были получены данные о трех встречах этого редкого луна. Во всех случаях регистрировались самцы во взрослом наряде. 7.04.2004 г. от-

мечен степной лунь в окрестностях г. Киева у рыбного хозяйства "Нивки"; 10.04. 2005 г. мигрирующая особь наблюдалась у с. Новые Петровцы Вышгородского района Киевской области; 12.04.2005 г. добыт экземпляр степного луна у с. Пустотино Новосовского района Черниговской области, который был осмотрен нами у таксидермиста.

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