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Société d'Ornithologie de l'Ouest
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News & Letters—Nouvelles & Lettres

WAOS Research Grant report: Habitat utilization by the African Grey Parrot *Psittacus erithacus* in Korup National Park and environs, Cameroon

This project was carried out with the assistance of a grant from the Society. The following is the abstract of the Ph.D. thesis which resulted from it, which has been accepted by the University of Ibadan, Nigeria.

Habitat utilization by the African Grey Parrot *Psittacus erithacus* was studied in Korup National Park, Cameroon. The parrot and its habitat are threatened by socio-economic exploitation. Unfortunately, exploitation is carried out without reasonable knowledge of basic habitat requirements and population densities of the bird. This dearth of knowledge formed the basis of this study.

The Stratified Random Sampling method was used to assess parrot densities and vegetation structure in sample plots. These were then related to habitat utilization intensities by the bird. Three sample plots were selected on the basis of land-use intensities by rural communities. These were the Park Sample Plot (Pk.SP) which was relatively unexploited, the Mixed Sample Plot (Mx.SP), which was averagely used, and the Palms Sample Plot (Pm.SP), which was intensively used. Line transects of average length 16 km and width 0.5 km were then randomly selected in sample plots for detailed parrot activity monitoring and habitat analysis. Data were collected on seasonal and sample plot basis.

Mean parrot densities in sample plots were very variable: Pm.SP had 41 per km², Mx.SP had 34 and Pk.SP had 13. Seasonal means were 36 and 21 for the dry and rainy seasons respectively. Mean parrot densities for two years were not significantly different ($P > 0.05$), however, an increment of 7.5% was recorded. Vegetation characteristics were similar within sample plots but significantly different ($P < 0.01$) between sample plots. Mean tree stand densities were: 12 per m² in the Pk.SP, 3 in the Mx.SP and 0.6 in the Pm.SP. Mean tree crown densities were 388% in the Pk.SP, 165% in Mx.SP and 136% in Pm.SP.

Fourteen food tree species belonging to 12 families were identified to be eaten by the parrot. As far as it is known, this is the highest number ever recorded for this species anywhere. Food items consisted of flowers, fruit and seeds; 50% of the food tree species were abundantly found in the Mx.SP, 36% were found in both Mx.SP and Pk.SP, and 7% in the Pm.SP. On a seasonal basis, 64% of the food types were mature in the dry season and 36% in the rainy season. Analysis of the food types revealed high concentrations of biochemical and mineral nutrients.

Overall mean parrot abundance at roosts was 313 per h in the rainy season and 155 per h in the dry season. Roosting sites were selected on the basis of physical

structure and safety of the site from predation. A total of 119 parrot fledglings was recorded in two years. The peak breeding season of the parrot was from July to October and peak fledging month was September. Parrot nests were limited to the Mx.SP (with 77%) and Pk.SP (with 23%). Nests were identified on four secondary vegetation species.

Variations in parrot densities and activities were influenced by changes in climate, shift in diets, composition and phenology of plant species, and socio-economic pressures on the bird and its habitat. The parrot had a high affinity for particular tree species at specific periods of the year. About 80% of parrot activities were more prominent in the secondary and mixed (primary and secondary) vegetation than in the primary vegetation. These were areas of intensive socio-economic activities.

It is concluded that habitat based socio-economic activities, that preserve tree species utilized by the parrot, enhance its activities in such a habitat. As such, effective conservation of the African Grey Parrot cannot be totally separated from socio-economic activities in rural communities. In other words, parrots and socio-economic activities must coexist. Thus, sustainable conservation of the bird will depend on strengthening the capacity of local communities and both private and public institutions, to understand and implement conservation initiatives. Various recommendations were made on the sustainable conservation of the bird and biodiversity, not only in Cameroon, but also in similar African rainforests.

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WAOS Research Grant report: Deux espèces de calao: *Tockus erythrorhynchus* et *T. nasutus* dans la diversité aviaire des aires protégées de la Petite Côte, Sénégal

Nous remercions encore la SOOA pour la bourse qu'elle nous a accordée en 1996. Elle était destinée à l'achat d'émetteurs pour compléter l'étude du Petit Calao à bec rouge *T. erythrorhynchus* par radio-pistage. Malheureusement pour des raisons techniques de compatibilité avec le récepteur que nous avions pu nous faire prêter, les émetteurs n'ont pas fonctionné correctement. Nous avons alors préféré utiliser le reste de l'argent pour étendre l'étude entreprise sur l'éco-éthologie des deux espèces et leur place dans la biodiversité aviaire des aires protégées de la Petite Côte, dans le cadre d'une thèse de doctorat de troisième cycle de l'Université Cheikh Anta Diop de Dakar, qui est à une phase très avancée. Des résultats obtenus sur l'étude de calaos ont déjà fait l'objet de trois articles:

Diop, M.S & Tréca, B. (1993) Nichoirs artificiels utilisés par le Petit Calao à bec rouge *Tockus erythrorhynchus*. *Malimbus* 15: 81-88.