Sex and age determination in nestling Goshawks *Accipiter gentilis*

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A method for sexing and ageing nestling Goshawks is presented. A discriminant function using body mass and the length of the seventh primary, culmen and tarsus lengths allowed sex determination from the age of 15 days, with an accuracy of 94.4%. Age in the first two weeks of life was best determined by tarsus length. After 15 days old, the length of the seventh primary can be used to estimate age to within two days.

Key words: Goshawk, Accipiter gentilis, growth, sex and age determination, Catalonia, Spain.

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INTRODUCTION

The Goshawk *Accipiter gentilis* is a common bird of prey in some areas of Catalonia (Mañosa 1994). A large number of studies have been carried out on the biology and ecology of this species, and it has been used to monitor environmental change (Ellenberg & Dietrich 1981). Provided the appropriate materials and data are collected, a good deal of information can be obtained during single ringing visits, allowing the optimization of the research effort and a reduction in the amount of disturbance caused.

The Goshawk shows extreme reversed sexual size dimorphism (Baker 1993). Several papers provide information on ageing and sexing nestlings of northern populations (Wikman 1976, Kenward et al. 1993), but, taking into account the strong clinical size variation of this species over its geographical range (Wattel 1973), these methods might not be useful in southern areas, where Goshawks are considerably smaller. The objective of this paper is to describe methods of ageing and sexing nestling Goshawks before they have reached full size, on the basis of morphological measurements, in the southern parts of the species’ range. This would facilitate accurate phenology studies and the estimation of the nestling sex ratio, both of which are crucial for the study and management of such a dimorphic bird of prey.

STUDY AREA AND METHODS

Altogether, eighty-two nestling Goshawks (40 males and 42 females) from...