

Importance of Insect Crop Pests in the Diet of the Cattle Egret *Bubulcus Ibis* (Linnaeus, 1758)

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Abstract : The Cattle Egret is a predatory bird with an insectivorous diet. It feeds in open environments (wetlands, meadows, farmland and cultivated land). Few studies have determined the status of its prey (useful or harmful species for agriculture). Hence, our study was carried out in the Bejaia region (Algeria). It consisted of examining adult rejection pellets collected in a heronry located in the lower Soummam Valley (El-Kseur), which has been a permanent habitat for over 30 years. Field sampling was carried out during the juvenile rearing period in 1998 (wet spring) and 2020 (almost dry spring). Examination of 50 pellets at a rate of 10 per month (May - September) in 1998 revealed the presence of 2,661 prey belonging to 170 species, i.e., an average of 53.36 prey per pellet. The results reveal that the diet of this Ardeidae consists mainly of Insecta (95.09%). Arachnida was a distant second (4.05%). Vertebrates (Reptilia and Rodentia) (0.82%) and myriapods (0.04%) are rare prey. We counted 2,154 plant pests (80.27%), of which 2,138 were insects (99.27%) and 0.73% rodents (*Mus spretus*). Of the plant-pest insects identified, 1385 were Orthoptera (64.78%). Formicidae came second (13.05%), and Coleoptera third (12.82%). Dermaptera, on the other hand, accounted for only 7.86%. Analysis of 30 rejection pellets, 10 per month (May - July) in 2020, identified 1,330 prey belonging to 80 species, an average of 44.33 prey per pellet. The results reveal that its diet is essentially made up of Insecta (94.81%). These are followed by Vertebrata (3.01%) and Arachnida (2.18%). We counted 1156 plant pests (86.82%), of which 86.02% are Insecta. Orthoptera are the most frequent (45.72%). They are followed by Dermaptera (33.74%) and Coleoptera (18.44%). The present study highlighted the importance of plant pests consumed by the Cattle Egret (80.27% in 1998 and 86.82% in 2020), which are far more numerous and diverse than auxiliary prey and pollinators. This confirms the bird's status as a biological control agent in the lower Soummam valley. It is, therefore, worth pointing out that this species deserves to be protected.

Keywords : bubulcus ibis, diet, lower soummam valley, insect crop pests

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