## P 7 Risk of spreading tick-borne diseases by birds in Algeria and especially the collared dove (*Streptopelia decaocto*)

Adnéne Belabed[a,b], Cherifa Guellati[b], Hana Soualah-Alila[a,b], Zihad Bouslama[a,b]

[a] Badji Mokhtar University, Annaba, Algeria
[b] EcoSTAq Laboratori

Ticks are currently considered the second important vectors of human infectious diseases in the world, next to mosquitoes. By their world distribution, species diversity, variability of behaviour, specificity of their hosts, ticks can transmit many causative agents of bacterial, viral, and parasitic diseases to humans. According to pathology, they play a simple role of vector or are the reservoir of pathogens. Ticks are widespread and increasingly implicated as vectors of human and animal diseases.

Birds are host to a variety of macroparasites. Among them are ectoparasites that may have adverse effects on their hosts; this can range from consumption of blood and temperature to wounds and bites which allow the transmission of parasitic diseases. These parasites cause a major way, the host immune system by inducing immunosuppression or hypersensitivity reactions. In addition, their impact on human populations is very striking, especially in poor countries.

The collared dove (*Streptopelia decaocto*), is a fascinating bird of the Columbidae family. It becomes more abundant in newly colonized countries. No bird showed a phenomenon of natural expansion as important as the collared dove. This species had been completely absent in our country (Algeria) and was first observed in 1994. This bird is currently present in very large numbers despite its parasites, proving its resilience to environmental constraints and its potential dispersal ability of pests and diseases from these parasites.

The goal of this work was to study the pathogenicity of ectoparasites (ticks, lice, fleas, mites) in the dove population. These ectoparasites were associated with indices of body condition and immune response of individuals. So we followed the reproduction in the collared dove in Algeria and showed that species are infested by ectoparasites, but had good morphometric conditions and therefore a good immune response.

The method used to collect ectoparasites and accounting was to visually examine individuals and to get all the ectoparasites of the bird’s body using a clamp.

The identification of ectoparasites revealed the presence of lice (*Liperus colombicola*, *Liperus heterographus*), moths (*Ornithonyssus sylvarium*), fleas, and ticks, especially hard ticks (Argasidae) transmitting several tick-borne diseases.