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**A preliminary bibliographic survey of the insects found in
poultry houses from the Neotropical Region, with remarks on
selected taxa shared with native birds' nests**

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Abstract

Species of insects associated to the habitat of *Gallus gallus* (Aves: Phasianidae) in the Neotropical Region belong to 144 identified species (42 Coleoptera; 14 Diptera; 17 Hymenoptera; 9 Siphonaptera; 1 Lepidoptera; 56 Hemiptera (one hybrid); 5 Dermaptera); 33 identified to genus (21 Coleoptera; 3 Diptera; 7 Hymenoptera; 1 Hemiptera; 1 Blattaria); 37 identified to family (23 Coleoptera; 9 Diptera; 2 Hymenoptera; 1 Lepidoptera; 2 Hemiptera); and 6 to order (2 Coleoptera; 1 Hymenoptera; 1 Siphonaptera; 1 Psocoptera; 1 Dermaptera). Most of the insects are haematophagous ectoparasites (Hemiptera; Siphonaptera; Diptera), detritivores (Coleoptera; Lepidoptera; Diptera; Blattaria), predators (Coleoptera; Diptera; Hemiptera; Dermaptera; Hymenoptera), and parasitoids (Hymenoptera). A total of 46 native American species and/or subspecies of Triatominae (Hemiptera: Reduviidae) were found in chicken houses, from which 18 were also found in birds' nests. It was recently observed that other insects from poultry houses, generally exotic species, had colonized native American birds' nests. Comments and remarks of selected taxa also found in birds' nests from Argentina and other countries are provided.

Key words: Insects, chicken houses, poultry houses, birds' nests, Neotropical Region.

Introduction

Gallus gallus (Linnaeus, 1758) [Aves: Phasianidae] is an exotic bird that lives only in a domestic state. It is reared at one small scale, near human habitations (hen houses, chicken houses, chicken coops), and in industrial scale for production of eggs and meat (poultry houses). The increasing poultry production involves the development of large-scale, man-made, highly managed production systems. High density, confined poultry production systems are stable environments with warm temperatures, high humidity, and large accumulations of poultry manure that provide an ideal habitat for arthropod pests. Because the environments of the various types of production facilities differ, the complex of arthropod pests differs among the systems (Axtell & Arends 1990).

Legner & Olton (1970) reported a worldwide survey of adult predator and scavenger insect populations of many types of domestic animal manure (including poultry), with some sampling in the Neotropical, Palearctic, Ethiopian, and Australian regions, but mostly California and the southwestern United States. Two major premise pests associated with poultry production are the house fly, *Musca domestica* (Linnaeus, 1758) [Diptera: Muscidae], and the lesser mealworm or darkling beetle, *Alphitobius diaperinus* (Panzer, 1797) [Coleoptera: Tenebrionidae]. Both insects, associated with the accumulated manure, have been implicated in the transmission of several avian diseases (Axtell & Arends 1990). Because of this, extensive literature was produced, mostly concerning their control by chemical and biological methods. Species of parasitic Hymenoptera on pupae of Diptera were introduced in several countries (Crespo *et al.* 2002).

On the other hand, it was recently observed that some insects from poultry houses, generally exotic species, had colonized native American birds' nests, and, inversely, some ectoparasites of native birds were recorded on chickens. Therefore, a preliminary bibliographic survey of the insects found in chicken coops, poultry houses, and on chickens from the Neotropical Region is necessary for further comparisons with the insect fauna found in native birds' nests.