ABSTRACT
Background: Investigating population ecology of urban bird species, particularly the invasive and expending species, is the key for the success of urban management and planning strategies. Methods: Populations of two Columbidae species, the Woodpigeon (Columba palumbus) and the Eurasian Collared Dove (Streptopelia decaocto), were monitored from 1992 to 2010 in the Algiers Sahel, the Mitidja Plain and surrounding areas (Northern Algeria). Monitoring of species densities was performed by the mapping-plot method. The foraging flight routes of Woodpigeon and the distribution of Eurasian Collared Dove were assessed by systematic observations. Results: The number of counted birds was statistically constant at first years of the survey, and then increased significantly, beginning from low numbers, their densities accelerated sharply between 2001 and 2006, then reached to an equilibrium state. The significant increase in Woodpigeon's population could be explained by the reduced hunting pressure and by species adaptation to new food resources provided by nearby agriculture. Indeed, monitoring of flight directions of the species revealed the use of agricultural landscapes and habitats, which is a good indicator explaining adaptation and trophic niche of the species. The occurrence of the Eurasian Collared Dove in Algiers began in 2000. Its density experienced a rapid increase with similar trend pattern as that of Woodpigeon. Its distributional range is confined mainly in suburban environments of the Mitidja Plain. Conclusion: The modifications of habitats, urbanization increase and the lessening of hunting in the Mitidja Plain facilitated the rapid expansion of the Eurasian Collared Dove and Woodpigeon as well contributed to the increase in their numbers over time