XXXIII International Union of Game Biologists IUGB Congress-2017
22-25.08.2017, Montpellier, France

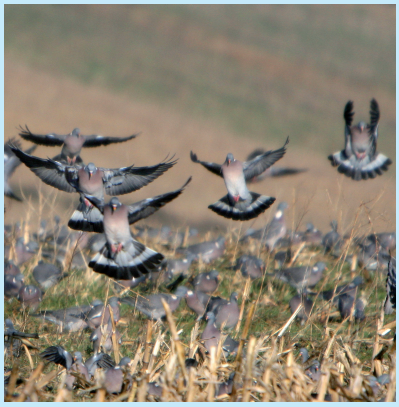
Dietary compositions and winter habitats of the woodpigeon in southwestern France

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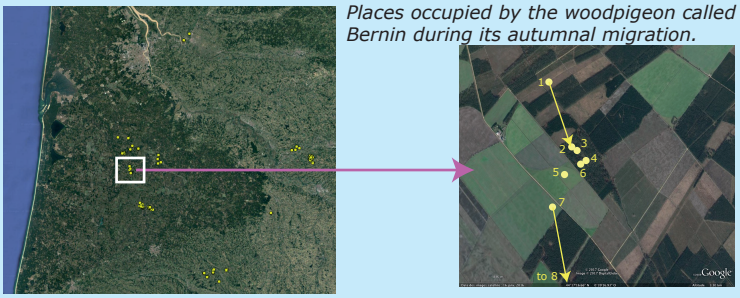
SUMMARY

The woodpigeon *Columba palumbus* is a popular game bird throughout western Europe. Since the 1950's, a growing number of birds that breed in northern and central Europe are coming to southwestern France to spend the winter instead of travelling to the Iberian Peninsula, where they historically go. Their presence during several months can cause severe damages in arable fields and the woodpigeon is locally considered as a serious pest of different crops.
The main management objective is to stabilize populations of woodpigeon to levels compatible with the demands of agricultural farmers and hunters. So, reliable annual population estimates, harvest estimates, and information on recruitment and distribution are crucial for effective woodpigeon management. The French GIFS (Groupe d'Investigation sur la Faune Sauvage) association and the French Office National de la Chasse et de la Faune Sauvage (ONCFS) provide this kind of information each year. Unfortunately, crop damages are increasing year after year in many French localities. Another focus of research was developed recently by the GIFS association. The issues are linked to how the birds use the biotope. Indeed, determining the composition of a bird's diet and its seasonal evolution are fundamental for understanding the ecology and ecological functions of a species. In order to achieve this, we studied stomach contents of birds killed by hunters during the entire hunting season (September through February). Furthermore, to better understand year-round movements and habitat requirements of birds, we used data from woodpigeons tracked by satellite telemetry. In this paper, we present preliminary results on woodpigeon diet and habitat selection used by birds during wintertimes.


François Sabathé

The woodpigeon *Columba palumbus* is a passerine in the family Columbidae, of which pigeons and doves are members. It is the most widespread and common member of its family in Europe. This adaptable, migratory species nests throughout the continent and winters in the southern countries. Large numbers of birds that nest in Central Europe and Scandinavia winter in south-western France and Spain. Pigeons that nest in France may either winter in France or migrate further south, to the Spanish Peninsula. The woodpigeon is in fact the most numerous and widely-distributed game bird in Europe with a continental population estimated at 51-73 millions. The numbers harvested exceed all other migratory species combined. At present, woodpigeons can be found in south-western France throughout the year. However, like other migratory birds, the number present during any season can fluctuate dramatically. The spring migration occurs primarily during March when birds can be found passing through to more northerly breeding areas. The autumn migration usually begins in October and can continue throughout mid-November. As with all wildlife species, food, water, and cover are essential for mourning dove survival. Woodpigeons are strong, swift flyers capable of traveling many kilometers to obtain their daily needs (food and water).
Consequently, all of the habitat requirements for woodpigeon do not necessarily have to appear on the place, but birds will be more numerous on land where all habitat needs are supplied.
We determined habitat use by migratory and wintering woodpigeons in south-western France through observation of 63 radio-marked individuals. Furthermore, we studied stomach contents of birds killed by hunters during the entire hunting season.

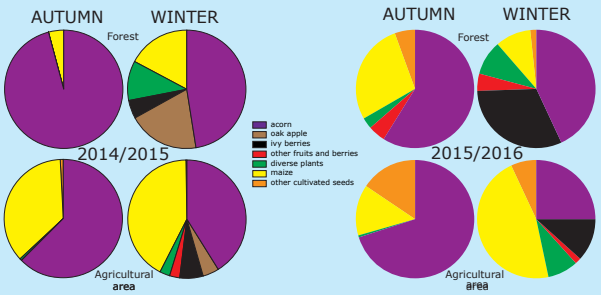
The woodpigeon is a habitat generalist. So, data come from different habitat types, including deciduous and coniferous forests, agricultural fields, and mixed habitats.
Birds prefer areas with an interspersion of different habitats, open woodlands or croplands that provide open area with highly visibility for feeding, and trees or other structures in close proximity for loafing and roosting. Traditional agricultural settings with grain crops separated by woodlots or fencerows are ideal. Suburban areas also meet the requirements of some of them.



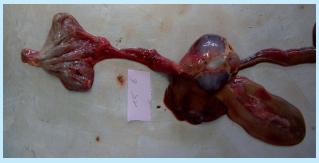
Places occupied by the woodpigeon called Bernin during its autumnal migration.

Woodpigeons will usually feeding immediately following sunrise and continue until their crop is filled. They use different cover types for roosting. Most roots are small woodlots located near a major source of food or water. These areas are commonly used nightly. When they are not feeding, they spend most of their time loafing on perches that offer high visibility. They normally fly to water both in the morning and evening after feeding.

During the hunting seasons of 2014/2015 and 2015/2016, samples of between 80 and 120 woodpigeons were shot in the entire region. Each shot bird was labeled individually, sealed in a polythene bag and stored in a deep freeze to await detailed analysis. In laboratory, birds were weighted, sexed and aged and their crop and gizzard contents were analyzed. Each item was expressed numerically as a percentage of the total number of items. So, comparisons can be made between birds and between samples.



We successfully detect noticeable seasonal shifts during autumn – winter. Our data suggest that dietary items were more diverse in winter.
In addition to wild plants, woodpigeons consume substantial amounts of agricultural crops, particularly cereal grains. The woodpigeon diet is far from stable from year-to-year and among regions.





CONCLUSION

The woodpigeon is a habitat generalist, and an opportunistic consumer. Its diet varied widely among regions and years. Food items consumed by birds are presumably the most profitable and locally abundant.

Aknowledgements We thank the many hunters and volunteers for their participation and aid in the survey programs.