

Analysis of the hunting activity on the Turtledove and its interaction with the Collared dove

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The Common Turtledove is a migratory bird that represents a traditional game resource which is highly appreciated on the Iberian Peninsula. The hunting season for these birds is held during the so-called Pre-Season, taking advantage of the postnuptial migratory flows, and it has become the main attraction in this active period. Over the last decade, there has been increased concern in the hunting world in the light of the widespread decline of this species over the last three decades, which has become more pronounced over the last few years and has raised many questions about the hunting sustainability of this species.

In 1996, the Authorities of Extremadura (Ministry of Agriculture and the Environment), which were the first to carry out the studies, contracted us to analyse the status of the species and to determine the factors affecting it in one of the main traditional reproduction areas of this columbiform on the European continent. Since this date, we have carried out an exhaustive study of the species, analysing its biology, behaviour and ecology during its stay in Iberian territory, with special emphasis on monitoring the hunting activity carried out on the species. As a result of this work, a Thesis and Doctoral Dissertation (the first in Spain on this species) have been written, as well as a book about the Ecology of the Collared Dove and a longer one on the Common Turtledove and the analysis of the factors affecting its status.

The situation of the Common Turtledove, at least in the main part of the Iberian Peninsula and other parts of Europe, such as the United Kingdom and France, where it has also been studied, is the decrease in the number of birds in the populations. This fact, which is well known by hunters through their direct contact with the environment, can be statically verified by noting the gradual decrease of hunted birds over the last few seasons (the figures are standardized averages per hunter per day of a good number of representative hunts in the Pre-Season in Extremadura). This decrease is also

reflected in the exploitation of each hunting day, which is becoming increasingly lower and is obviously based on the stocks available.

There are many different causes for this decline; however, the main causes lie in the changes produced in their traditional reproduction habitats, caused by the CAP and the abandoning of cereal crops. Other causes found by our team are the negative effect of the use of herbicides which prevent seeds developing from ruderal plants, which are vitally important as a food source when crops are not yet available. In Extremadura and, more recently, in France a negative effect has been detected through the competition that the invasive Collared Turtledove poses, which, although essentially considered as an urban species, in the case of Extremadura uses the same nesting habitats as our turtledove.

In this context, there appears to be excessive hunting pressure on a species which is already encountering managers, especially as, in the light of the shortage of turtledoves, some unscrupulous managers have opted for illegal methods, such as the use of food baiting that favours the concentration of the mass hunting of mainly young birds. The use of abusive practices has increased as the turtledove have been disappearing. Therefore, there has been an increase from the 22% of game preserves that used illegal methods in the 1996 season to the more than 30% in the 2000 season. At the present time, after adopting new measures of control, the percentage is around 28% of the game preserves in Extremadura. If this type of abusive practices is not eradicated, they will continue to be more or less profitable until the stocks are totally depleted, which, as the actual hunting results show, will take place in a very short time. However, the rational and ethical management of hunting would suggest moderating the exploitation in adverse situations, such as the current situation of the species. However, what is now clear, in any case, is that this type of abusive practice is completely incompatible with a sustainable use of this resource and should be pursued and eradicated.

After making this necessary introduction, we will now go into more detail about the aspects included in the title of this report which, for greater clarity, we will divide into two clearly differential sections:

Situation of the competition with the Collared Dove

As regards the possible effect of competing species, we have looked closely at the knowledge of the biology and ecology of the Collared Dove (*Streptopelia decaocto*) in our region. It is an invasive species of a larger size, which is sedentary and is in increasing, continuous expansion and has been colonizing most of Europe since 1930, and the Iberian Peninsula since 1960.

Despite the fact that this species is considered as essentially urban or peri-urban, in our studies it has been demonstrated that the habitats preferred by the Collared Dove, in Extremadura, are mainly rural and they coincide with the traditional reproduction habitats of the Common Turtledove. This fact has also become apparent in France where the Collared Dove has been present for a much longer time.

Along these lines, with regard to the segregation of these two species of doves, through the analysis of 354 towns with a possible distribution of both species, our results show that the presence of one of the two species excludes the presence of the other, and as the density of one species increases in one place, it reduces the density of the other.

In this situation of competition, the population of the Collared Dove is increasing with great speed in Extremadura, and in this increase, it is colonizing traditional reproduction habitats of the Common Turtledove in which it uses the same nesting structure. In view of this, bearing in mind that the Collared Dove has an advantage in this situation of competition as it is greater in size (Fletcher, 1979), it lives in the area throughout the whole year, and reproduces several times throughout the annual cycle (Höppner, 1979; Robertson, 1990) with a greater total reproductive success rate than Common Turtledove (76,9% of successful nests in Extremadura), we can expect the same situation to occur as already seen in other areas when the populations of the Collared Dove increased (Glutz & Bauer, 1992). As a result of this, without a doubt, the situation of competition with the Collared Dove constitutes an additional factor, which is one the increase and can aggravate the regression that the Common Turtledove is currently undergoing.

Paradoxically, the Collared Dove was not considered as a hunting species, which gave it an important additional advantage in its favour in comparison with the Common Turtledove, as it was not under any hunting pressure. For this reason, at the time, we recommended that this bird should be considered as a game species in Extremadura. The Authorities, as far as we know with good criteria based on the previous study, included it among the hunting species in the Pre-Season and it has had

good acceptance for three seasons now, occupying third place as regards its frequency of appearance in hunts. The hunting of this species was also authorized in other Autonomous Communities, until in the 2002 season was ordered, from European instances led by a prior complaint, to suppress the hunting of this species together with that of other birds, such as the Starling, in different Autonomous Communities where it had been allowed, claiming that these birds did not figure in the list of game species. Recently, the National Wild Flora and Fauna Committee (where all the Autonomous Communities are represented) has requested the National Commission for the Protection of Nature to request the European Commission to make the Collared Dove a game species one more.

Evaluation of the incidence of hunting in the Pre-Season

We have paid special attention to the section referring to the hunting exploitation of the species, for this purpose, total direct monitoring has been carried out on a large number of hunts held in the Pre-Season in Extremadura, throughout the 1996-2003 seasons. These hunts were chosen at random across the entire regional area to obtain a representative, homogeneous sample that could be compared across seasons. For this difficult, colossal task of collecting such a large quantity of reliable data, we had the inestimable help of a growing network of voluntary collaborators, which, year after year, have responded enthusiastically to our request for information. Among these voluntary collaborators, we must highlight a high proportion of hunters that are sensitised with the situation of the species and willing to work to gain more knowledge on their situation.

The estimates of the total volume of hunting show that, in our region (and it is possibly the same in others), much more stocks are being hunted than are being produced, more specifically, in 1997, according to our estimates, around 125,000 chicks were shot down whilst only around 52,000 were produced in the countryside of Extremadura. This indicates that a good part of the captures are birds which come from other reproduction areas passing through Extremadura on their migratory route, as most of the migratory flow flies over this region as it crosses the Iberian Peninsula in postnuptial migration.

Our results highlight how important it is to correctly choose the dates to start the Pre-Season, as the usual start of the open hunting season overlaps with the end of the brooding period, which leads to the loss of broods due to the death of their progenitors. This way, 2.7% of the nests contain chicks and 13.7% of the chicks have not yet acquired their full ability to fly by the usual dates for the start of the Pre-Season, from 15th August. In addition, a delay to the start of the Pre-Season would favour a more balanced proportion of Young/Adult birds shot down, which would improve the replenishment rate. On the other hand, an excessively late start could lead to relevant economic losses by not allowing the opportunity to hunt the birds in the periods of maximum migratory affluence.

On the other hand, this proportion of young birds in relation to adults is clearly deviated towards to young birds, as nearly two young birds are shot down for each adult (young/adult birds shot down = 1.7), and no significant differences were found between the different years studied or between the two provinces. Therefore, it can be seen that hunting selectively affects the young population (developing chicks raised in the same season). This proportion of young birds shot down in relation to adults is greater at the beginning of the Pre-Season, gradually decreasing towards the end, and increasing in hunts with successful results, i.e. with the number of doves per hunter per day over the average, which in Extremadura is around four pieces per participant per day.

In addition, this situation is aggravated in hunts where illegal practices carried out, which are extremely widespread, using food or bait to concentrate the birds in artificial feeding places. This practice basically consists in continuously providing food in a certain location for Turtledove and other game species several weeks or months prior to the hunt and during the Pre-Season. This baiting favours the concentration in more or less small areas of mainly young birds in large groups that are attracted by easy food, at specific points, where they can be shot down very easily. The hunting of these inexperienced developing birds would be totally against the traditional hunting ethics which, at all costs, aim to avoid the hunting of immature individuals without the full ability to defend themselves. On the other hand, providing food to game species at an unfavourable time is in itself recommendable practice, what is not acceptable is the use of these feeding areas and their surroundings for hunting.

In the light of all the above-mentioned, it can be observed that hunting, as practiced at the present time, can constitute a negative factor of regression, above all,

for a species which is already suffering multiple difficulties, among which we can highlight the loss of habitats or the expansion of an invasive competing species.

Up to this point, we have gauged the importance and analysed the effects of two of the factors which, in a differing degree, are conditioning the status of the Common Turtledove in Extremadura. All of these factors, which can be extrapolated to other distributed areas, unable us to demonstrate the current delicate situation of this species, which is expecting difficulties that could affect its capacity for survival in the future.

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