



# **Cyprus bird trapping surveillance project: Winter 2010/11**

**Covering the latest findings of BirdLife International's continuing monitoring programme of illegal bird trapping in Cyprus.**

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## Greek Summary

Η χειμωνιάτικη παρακολούθηση 2010-11 έγινε τους μήνες Δεκέμβριο 2010 και Ιανουάριο 2011, με τα ακόλουθα αποτελέσματα:

- 53 τετράγωνα ελέγχθηκαν, καταγράφοντας σχεδόν συνολικά 1 χιλιόμετρο προετοιμασμένων / εν λειτουργίας διαδρομών για την τοποθέτηση δικτύων. Γενικά τα στοιχεία δείχνουν να έχει μειωθεί η παράνομη παγίδευση σε σύγκριση με τα επίπεδα που καταγράφηκαν τον χειμώνα 2009-10. Ο σχετικά μικρός αριθμός τσίχλων (*Turdus philomelos*) που διαχείμασαν στην Κύπρο το 2010-11 ήταν αναμφίβολα ένας σημαντικός παράγοντας για αυτή την μειωμένη δραστηριότητα στην παγίδευση.
- Η χειμερινή δραστηριότητα σε δίκτυα ήταν μειωμένη κατά λίγο περισσότερο από 60% στις Βρετανικές Βάσεις, αλλά παράλληλα την συνεχή προσπάθεια πάταξης, η καταγραμμένη παγίδευση με δίκτυα (στημένες και ενεργές διαδρομές) ήταν και πάλι πολύ περισσότερη (σχεδόν 2 φορές περισσότερη κατά μέσο όρο ανά ελεγχόμενο τετράγωνο) σε περιοχές των Βάσεων σε σύγκριση με περιοχές της Δημοκρατίας, μία τάση που έχει παρατηρηθεί τις πρόσφατες περιόδους.
- Συνολικά για το έτος 2010, τα επίπεδα παράνομης παγίδευσης (από τους καταγραμμένους διαδρόμους) ήταν υψηλότερα το φθινόπωρο, κάπως χαμηλότερα την άνοιξη και ακόμα χαμηλότερα το χειμώνα, όπως αναμενόταν και δεδομένου των διαφορετικών αριθμών πουλιών που πέρασαν φθινόπωρο, άνοιξη και χειμώνα.
- Υπολογίζεται ότι η θανάτωση πτηνών από δίκτυα ξεπέρασε τις 231,000 εντός της περιοχής παρακολούθησης για τον χειμώνα 2010-11 (και σχεδόν 310,000 πτηνά για ολόκληρη την Κύπρο).
- Για το έτος 2010 υπολογίζεται ότι τα θανατωμένα πτηνά ξεπέρασαν το 1.813.000 εντός της περιοχής παρακολούθησης και σχεδόν 2.418.000 για ολόκληρη την Κύπρο.

Χωρίς αποφασιστική και συντονισμένη δράση από τις αρμόδιες αρχές με στόχο τη ζήτηση και διάθεση πουλιών στα εστιατόρια, και μια μεγάλη καμπάνια ενημέρωσης και ευαισθητοποίησης του κοινού, οι απαράδεχτοι αριθμοί του 2010 είναι δυνατόν να επαναληφθούν και μπορεί ακόμα να χειροτερεύσουν. Τέλος επιβάλλεται να υπάρξει ισχυρή και αποφασιστική πολιτική βούληση για αυξημένη πάταξη από τις αρμόδιες

αρχές, που είναι επίσης απαραίτητη για να παταχθεί αποτελεσματικά το πρόβλημα της παράνομης παγίδευσης.

## English Summary

The winter 2010-11 survey was undertaken during December 2010 and January 2011, with the following key findings:

- 53 1 km<sup>2</sup> squares were surveyed, finding almost a total of 1 km active / prepared rides for the setting of mist nets. Overall, trapping activity appears to have decreased compared to the levels recorded in winter 2009-10. The relatively small number of thrushes (*Turdus philomelos*) wintering in Cyprus in 2010-11 was undoubtedly a key factor for this reduced trapping activity.
- In keeping with the overall pattern described above, winter mist netting activity was down by just over 60% in the Sovereign Base Areas (SBA), but, despite ongoing enforcement efforts, recorded trapping activity with mist nets (active net rides) was again much higher (nearly two times higher on average per square checked) in SBA compared to the Republic of Cyprus (RoC) areas, in line with the recorded pattern of recent seasons.
- Overall for the year 2010, trapping activity (measured on basis of recorded active net rides) was highest in autumn, followed by spring and winter seasons, as would be expected given bird abundance patterns during autumn, spring and winter. .
- It is estimated that over 231,000 birds were caught in nets within the survey area during the 2010-11 winter season (and nearly 310,000 birds across Cyprus).
- As for the year 2010 overall, the estimated toll reached just over 1,813,000 birds for the survey area and almost 2,418,000 birds across the whole of Cyprus.

Without a determined and consistent action from the competent authorities to target the demand and availability of birds in restaurants and without a massive targeted public information and awareness raising campaign, then the atrocious death toll of 2010 will likely be repeated and could even get worse. Finally, it is necessary for true political will to be shown at the highest level in support for increased enforcement action, which is also necessary in order to fully tackle this intractable problem.

## 1. Introduction

Bird trapping in Cyprus is an indiscriminate and illegal practice that threatens many bird species of priority conservation concern for the EU. Trappers are mainly after blackcaps (*Sylvia atricapilla*) and other migrant songbirds, destined for home consumption or to be served as expensive *ambelopoulia* delicacies in local restaurants. Trapping activity is concentrated in the autumn season, when the largest numbers of birds pass through Cyprus for their winter grounds. However, trappers are also active both during the spring and the winter. In winter, trappers are mainly after Song thrushes (*Turdus philomelos*), but also Blackcaps and Robins (*Erithacus rubecula*). In addition, many 'non-target' birds are known to die in the mist nets and on the limesticks trappers use.

Mist nets can generally catch many more birds than limesticks, though experienced limestick users, with expert knowledge of how to prune trees or bushes for optimum placement of the glue sticks, can probably catch as many birds as mist net users. The catch is significantly increased by the now widespread use of decoy machines that reproduce bird song, which draw migrant or wintering birds into areas set with nets and/or sticks. Mist net use became widespread in the 1980s, while the extensive use of decoy machines that reproduce bird song began in the 1990s. Nets are often erected in established plantations of citrus, olives, figs or other fruit trees. Additionally large areas of land have been planted with non-native acacia bushes specifically in order to create good bird trapping habitat. Cape Pyla, in the Eastern British Sovereign Base area (ESBA), is the most obvious example of extensive habitat management for trapping.

Though bird trapping has been illegal in Cyprus for over 30 years, the practice was widespread and largely blatant prior to a clampdown by authorities in the new millennium. Financial gain is the main motivation for illegal trapping. Determined poachers can make thousands of Euros a year by selling

*ambelopoulia* and thrushes for home or restaurant consumption. Trapping has become increasingly covert in recent years in response to increased enforcement, with trappers no longer leaving their nets out during daylight hours. It is generally acknowledged that the remaining trappers are a hard-core of well-organised and often ruthless criminals.

In the autumn of 2002, concerns about the conservation impacts of bird trapping in Cyprus led the Royal Society for the Protection of Birds (the RSPB, BirdLife in the UK) and BirdLife Cyprus (BirdLife in Cyprus) to launch a groundbreaking joint project to monitor the illegal activity. Monitoring has subsequently been carried out every spring and autumn season and since 2007 in winter too. This report covers the findings of the winter 2010/11 surveillance programme, the fourth successive winter survey.

## **2. Methodology of field survey**

The monitoring programme for illegal trapping follows a “Bird trapping protocol” that has been developed and implemented by BirdLife Cyprus following consultations with the Royal Society for the Protection of Birds (RSPB – BirdLife in the UK), the Cyprus Game Fund and the British Sovereign Base Area (SBA) police.

The monitoring is concentrated in the two main trapping areas of the Island:

- the SE corner of the island, covering Paralimni, Ayia Napa, Cape Greco and Cape Pyla in the Famagusta and Eastern Larnaca Districts (including the Dhekelia Eastern Sovereign Base (ESBA) area), and
- Ayios Theodoros and Maroni valleys, west of Larnaca.

The project is undertaken with the close co-operation of the competent authorities of the Republic of Cyprus (the Cyprus Game Fund Service and the Cyprus Police) and the British Sovereign Base Areas (SBAs) - the SBA Police.

When trapping evidence is found, the observers immediately contact the relevant enforcement authorities. It is stressed here that the BirdLife Cyprus observers never confront suspected trappers and never remove trapping paraphernalia.

### *Survey area and sampling strategy*

The surveillance project began in 2002 with the coverage of 60 sample squares (each 1x1 km) chosen at random from within a 261 km<sup>2</sup> study area, which covered most of the Famagusta/Eastern Larnaca area and the Ayios Theodoros – Maroni area.

In 2005, the monitoring became more targeted, focusing on habitat suitable for trapping. Each 1 km square within the study area was classified as either a 'possible bird trapping area' or 'unlikely bird trapping area' based solely on the presence or absence of vegetation suitable for setting limesticks or nets. Surveillance subsequently took place in 'possible' squares only. Some 44 of the original 60 sample squares were 'possible bird trapping area' squares under the new classification. These 44 squares were kept, with another 16 new squares chosen randomly to bring the total sample to 60 again.

Preliminary surveys in autumn 2006 found evidence of extensive trapping on the margins of the original (261 km<sup>2</sup>) survey area. In response to this, in 2007, the survey area was expanded to cover 295 km<sup>2</sup> for Famagusta/Eastern Larnaca area and 111 km<sup>2</sup> for Ayios Theodoros – Maroni area, bringing the total survey area to 406 km<sup>2</sup>. The sample size was expanded to 100 squares (40 new squares were randomly chosen) to allow for this extension of the survey area. Out of the 436 1 km squares of the expanded survey area, 301 have been classified as 'possible bird trapping area' squares. The 100 sample squares covered every autumn and spring since 2007 represent 33% of the total suitable trapping area within the study area. For winter surveys, a smaller sample of survey squares is covered, but always including the 44 repeatedly covered squares. The random selection of sample squares is stratified to ensure

representative coverage of areas under SBA, Republic of Cyprus and “Joint” jurisdiction.

In the analysis of field findings, data from all the sample squares covered in the given season can be used to identify short-term trends, while data from the sub-sample of 44 squares covered every season since 2002 can be used to identify longer-term trends<sup>1</sup>.

### *Surveying for trapping activity*

Surveying consists of a two-man team systematically searching for evidence of illegal trapping activity in the randomly selected one-kilometre squares. The time taken to survey each square is recorded, as are weather patterns and the presence or absence of large numbers of migrant (or wintering) birds.

For safety reasons (avoidance of possible confrontation with trappers) the BC observers do not go out in the field at dawn, which is the main period of trapping activity, but carry out surveys between 09:00 and 17:00. Each sample square is surveyed only once each season, partly for safety reasons (minimising the risk of the observers becoming known to trappers) and partly because repeat sampling of each square has no particular value when it comes to analysis of the collected data. Opportunistic observations are also made on the surroundings of squares where mist netting is suspected.

### *Mist nets*

The two observers carry out a thorough search of all habitat patches suitable for the setting of mist nets (i.e. all areas with bushes and/or trees) within each sample square. The observers record all direct and indirect evidence of mist net and tape lure use and of net ride preparation and use (e.g. cleared corridors within vegetation for putting up nets, presence of pole bases). The codes used

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<sup>1</sup> It is noted that for this report (winter 2010-11) only 36 of the original 44 squares were surveyed due to capacity limitations.

for the various categories of mist netting activity and tape lure use are given below, as are the codes used for recording the type of habitat where trapping activity is detected<sup>2</sup>. The surveyors note cases where they come across enclosed (fenced) areas that they cannot see into at all, or cannot see into well enough to survey fully.

**Table 1 Key to survey codes used for the field**

<u>Net code</u>	<u>Habitat code</u>	<u>Tape lure code</u>
O – old ride	A – acacia	P – tale lure present, playing
P – ride recently prepared	C – citrus	L – loudspeakers present
ANN – active no nets present	E – eucalyptus	Y – tape lure present, not playing
AUN – active unset net present	F – fig	U – unknown
ASN – active set net present	J – mulberry	W – electrical wires associated with tape lures
IUN – inactive unset net present	O – olive	B – car battery present
	M – maquis	
	P – pomegranate	
	K – carob	
	Cy - cypress	

### *Limesticks*

While the main effort of the observers is to locate evidence of mist netting, all evidence of limestick activity is also recorded. Limesticks are much harder to locate in the field than mist nets and are often set in a different habitat to mist nets. In addition, incidental evidence for limestick use is hard to detect (though trees pruned to hold limesticks are readily identifiable). It is impractical to search entire 1 km sample squares for limesticks due to the time consuming nature of the task. The protocol is therefore for the observers to look out for limesticks while concentrating on surveying for mist netting activity.

<sup>2</sup>These codes are explained fully in detail in the Autumn 2002 Bird Trapping surveillance report



### 3. Results for winter 2010/2011 period

The winter survey 2010-2011 was carried out during December 2010 and January 2011 following the standard survey protocol. In total 53 squares were surveyed during this period - 36 of these squares that have been consistently monitored throughout the period 2007-2010.

In keeping with BirdLife's standard practice, the survey team immediately reported all net finds to the relevant enforcement authorities, either the SBA Police or the Cyprus Game Fund / Police Anti-poaching Unit, depending on location of the finds.

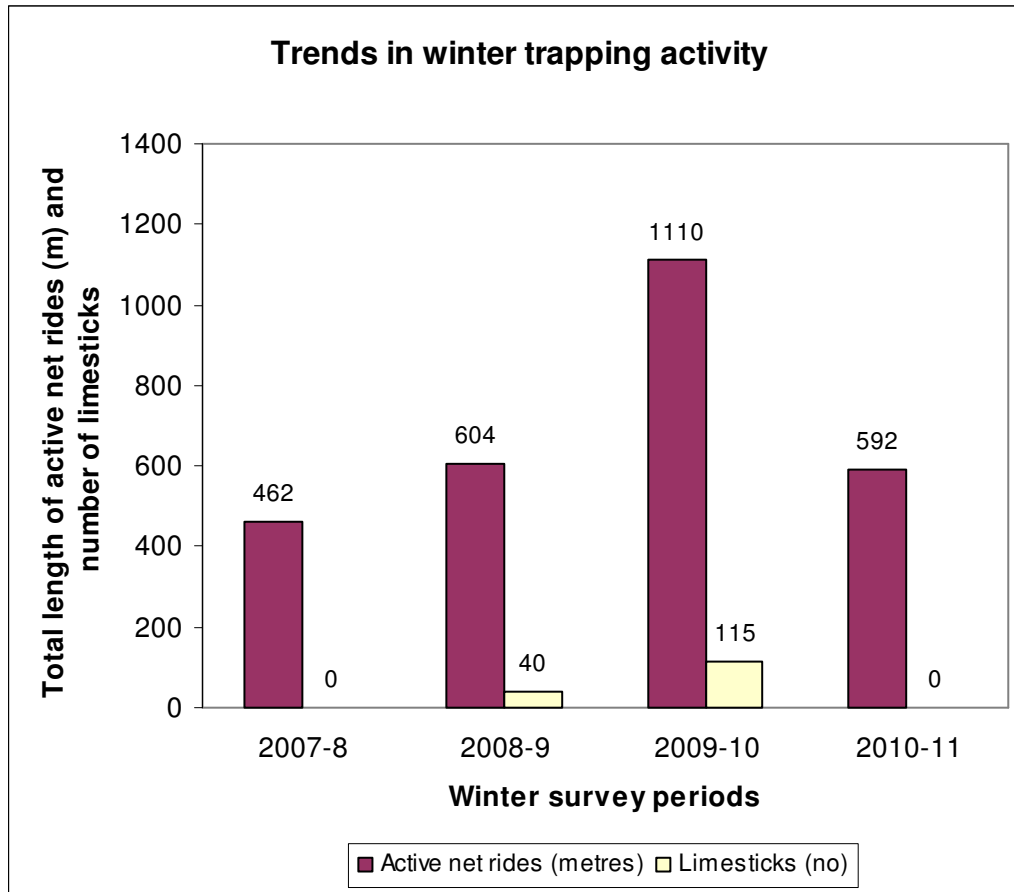
Appendix 1 presents all the survey data recorded for the winter 2010-11 trapping activity for the 53 1 km<sup>2</sup> squares covered by the BirdLife Cyprus team. The survey team found nearly a 1 km (936 metres) of active net rides (cleared "runs" in acacia plantations or other habitats e.g. orchards, olive trees, either holding nets or where there was clear evidence of preparation for the setting and/or use of nets). Although no limestick use was detected in the field, this is highly unlikely to mean that that no limesticks were set for trapping<sup>3</sup>.

Opportunistic checks beyond the survey area (see Appendix 2, **Error! Reference source not found.**) recorded an additional 100 metres of active net rides (one ride had an unset net, AUN).

Figure 1 below presents the trend in winter trapping activity for the 36 repeatedly surveyed squares.

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<sup>3</sup> As highlighted in the methodology section the focus of the monitoring programme is on mist nets since undertaking a thorough checking for limesticks would be very time consuming.



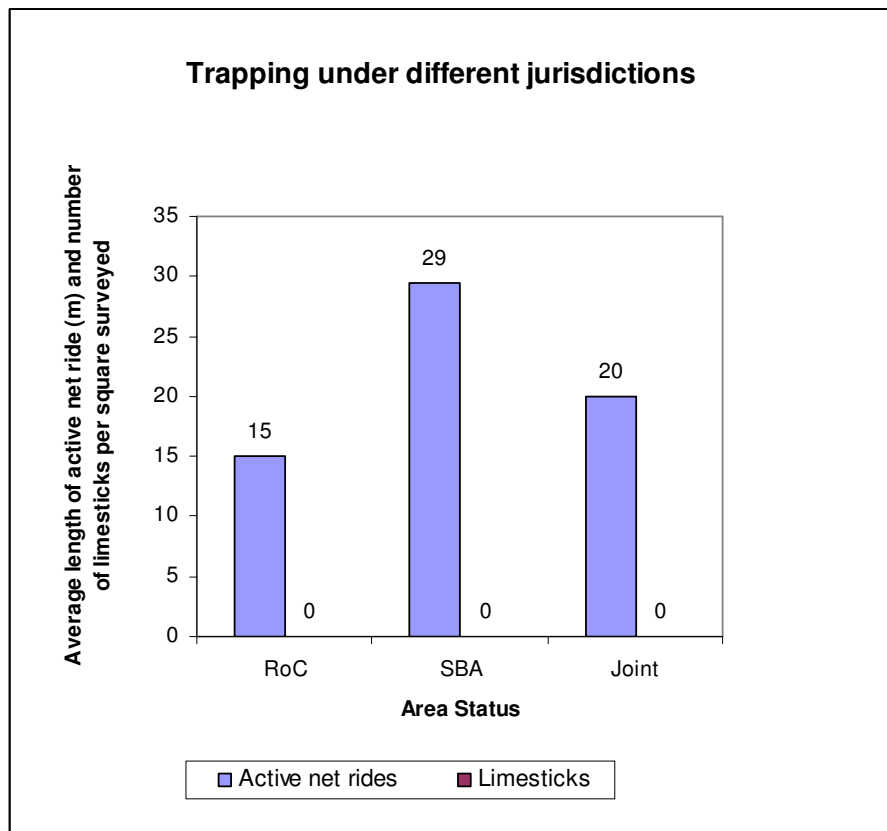
**Figure 1. Trends in winter bird trapping activity for period 2007 - 2011**

The field data indicate that in comparison to the winter 2009-10, which had seen a dramatic increase in illegal trapping activity, the trapping for winter 2010-11 has decreased to the levels recorded 2 years ago (592 meters for active net rides and 0 limesticks for the 36 repeatedly surveyed squares for winter 2010-11). However this decrease does not, we believe, reflect a real (behavioral or cultural) change in illegal trapping. Also, while credit should be given to the enforcement authorities for their continuing efforts in the field (under often very difficult circumstances), the reduction in trapping activity in the winter of 2010-11 cannot be attributed to enforcement alone. During the winter period 2010-11, the numbers of wintering Song thrushes (*Turdus philomelos*) were low, as indicated by BirdLife Cyprus bird records and acknowledged by hunters and the Game

Fund. Illegal trappers would have noticed this and most likely did not set as many nets or limesticks, since the catch would probably be low.

The level of trapping activity varies under the different jurisdictions of the squares surveyed: Republic of Cyprus (RoC), Dhekelia British Sovereign Base Area (SBA) and “Joint” (squares with parts belonging to both). Of the 53 squares surveyed in winter 2010-11, 42 squares were in RoC, 9 in SBA and 2 of Joint status. Figure 2 presents the trapping under different jurisdictions for winter 2010-11 by calculating the average net ride length (prepared and active) per squared surveyed for that jurisdiction:

- = sum of length of net rides found / number of squares surveyed
- = 631 / 42 (e.g. RoC)
- = 15 metres / square surveyed.



**Figure 2. Winter 2010-11 trapping levels under different jurisdictions**

With regards to mist net use the results indicate the pattern that has been identified in recent years of the surveillance programme, that the use of mist nets per square surveyed is much higher in the SBA than in the Republic of Cyprus (for winter 2010-11 it was nearly twice as high in the SBA). As for “Joint” squares, the level of mist net use was somewhere in between the SBA and the RoC. Table 2 summarises the mist net and limestick use for RoC, SBA and Joint areas for the last two winter periods.

**Table 2 Average net ride length and number of limesticks per square surveyed for winters 2009-10 and 2010-11**

Area status	Mist net use (Average length of net ride (m) per square surveyed)		Limestick use (Number per square surveyed)	
	Winter 09-10	Winter 10-11	Winter 09-10	Winter 10-11
RoC	33	15	2,2	0
SBA	76	29	0	0
Joint	104	20	0	0

Though mist netting activity remains much higher in the SBA areas than in Republic areas, the percentage reduction in winter mist netting activity was slightly greater (around 62% between 09-10 and 10-11) for the SBA areas than for the Republic (around 55%). As for «Joint» status squares the reduction in netting activity was just over 80%.

Table 3 presents the use of mist nets and limesticks per square surveyed during 2010 (and winter 2010/11) as a whole, indicating that, as expected, the peak season for trapping activity was autumn when the birds were migrating for their winter grounds and were more favorable for the illegal trappers.

**Table 3 Mist net and limestick use for 2010 year (and winter 2010/11)**

Area status	Mist net (Average length of active net ride (m) per square surveyed)			Limestick use (Number per square surveyed)		
	Spring 10	Autumn 10	Winter 10-11	Spring 10	Autumn 10	Winter 10-11
RoC	17,5	24,9	15	0,4	4,2	0
SBA	44,4	154,6	29	0	5,5	0
Joint	73	72	20	0	0	0

However it should be highlighted that 2009 field data indicated that trappers were more active during the winter than the autumn, which was associated with the high number of wintering thrushes during the winter 2009/10 (see Table 4).

**Table 4 Mist net and limestick use for 2009 year (and winter 2009/10)**

Area status	Mist net (Average length of active net ride (m) per square surveyed)			Limestick use (Number per square surveyed)		
	Spring 09	Autumn 09	Winter 09-10	Spring 09	Autumn 09	Winter 09-10
RoC	14,4	20,3	33	0	2,5	2,2
SBA	36,6	69,5	76	0	0	0
Joint	24	57	104	0	6	0

#### *Estimate of numbers of birds caught during 2010*

The 53 squares surveyed during the winter of 2010-11 represent just under 18% of the total of 301 1 km<sup>2</sup> squares of the study area that are classified as “possible bird trapping” squares (see Methodology section for more details). Scaling up the total active net rides recorded (936 m) on the basis of the proportion of the total suitable trapping area sampled, suggests that over 5km (5,316 metres) of net rides were active within the survey area as a whole during the winter season. It is

assumed that 75% of the illegal trapping activity takes place in the survey area<sup>4</sup>, hence for the whole of Cyprus it is estimated that over 7 km (7,088 m) of net rides could have been set up.

This 5 km of prepared net rides set in the survey area could hold over 443 of 12-metre nets, each capable of catching an average of 20 birds per day<sup>5</sup>. Assuming the winter trapping season to be 40 days long (this is conservative estimate allowing for the many rainy days during November, December and January) and assuming that the prepared (P) rides (69% of the total net rides recorded) were active only every other day and active net rides (ANN, ASN and AUN - see Table 1 in the Methodology section for net codes) every day, then it is estimated that over 231,000 birds could have been caught in nets within the survey area during the 2010-11 winter season (and nearly 310,000 birds across Cyprus, based on the assumption that the survey area covers 75% of the island's trapping activity). In comparison, during winter 2009-10 the bird death toll for the study area was of the order of 638,000 (and over 850,000 birds across Cyprus), suggesting a reduction of the order of 64% of birds killed.

Despite the decline in winter trapping the year 2010 as a whole has been an ecological disaster in terms of the bird death toll, reaching an estimated total of just over 1,813,000 birds for the survey area and almost 2,418,000 birds caught across the whole of Cyprus using mist nets and limesticks.

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<sup>4</sup> BirdLife Cyprus (2008), "Protocol for monitoring levels of illegal bird trapping with mist nets and limesticks in Cyprus"

<sup>5</sup> See Magnin's 1986 report to the ICBP

## 4. Conclusions

Overall the field data recorded for the winter 2010-11 season suggest that the trapping activity was lower than the preceding year (winter 2009-10) which is good news. On the other hand, we believe, this decrease does not reflect a behavioral and cultural change in illegal trapping. Nor can this change be attributed solely to enforcement of the legislation by the competent authorities, which undertook raids and operations to confiscate illegal trapping equipment and *ambelopoulia* served in restaurants. The primary factor keeping trapping levels (relatively) low is more likely the low numbers of wintering song thrushes, the trappers' main winter target species.

Despite the positive news about the decline in winter bird trapping (and regardless of the underlying reasons for this reduction) the year 2010 has seen a disastrous "slaughter" of birds in Cyprus. The death toll was estimated to be in the order of 2,5 million birds across the Island, which suggests that illegal trapping was higher than previous years (for 2009 it was estimated that just over 2 million birds were killed across the island). This is an unacceptable situation considering the volume of bird killing and the non selective nature of the trapping. Evidence from well documented reports<sup>4</sup> has shown that as many as 122 different bird species have been recorded as caught on mist nets and limesticks, of which 58 species are listed as threatened by BirdLife International and the EU Birds Directive (2009/147/EC) and should receive special conservation measures for their survival and protection. Ironically 2010 was the "International year of Biodiversity" where global efforts were taking place to halt biodiversity loss, but obviously not in Cyprus, at least not when it came to bird trapping.

The successful raids on restaurants suspected of serving *ambelopoulia* seen in the late autumn of 2010 and winter 2010-2011 need to become the "norm". BirdLife Cyprus calls upon the competent authorities to draw up targeted action plans and to allocate additional resources to reverse this situation, since bird

trapping has been steadily increasing in the recent four years. Truly effective enforcement is necessary to deal with the well organized network of illegal trappers who are making millions of Euros out of this illegal practice and the restaurants which are serving the *ambelopoulia* delicacies to indifferent customers. Moreover true political will and support to enforcement authorities for more enforcement is vital. Finally, it is clear that a big awareness raising campaign, targeting the ‘indifferent’ public is needed in order to bring about a change in public opinion.

Recalling one of the first studies done regarding bird trapping in Cyprus, by Hubbard (1968)<sup>6</sup>, the researcher had reached the conclusion that “...*The basic answer seems to be one of education; education at all levels and in a massive dose...Much more is necessary in order to bring the subject to wider attention, especially in the schools and via the mass media*”. Ironically this statement is even truer in today’s Cyprus, more than 40 years after Hubbard’s report, when the public is the driver for the *ambelopoulia* market. Changing public attitude is the core for stamping out bird trapping and BirdLife Cyprus is determined to continue and step up its “enlightenment” efforts against bird trapping.

Education and awareness raising could also help redress the other serious gap in effective enforcement: the absence of deterrent penalties being imposed by local courts to offenders, despite the harsh penalties foreseen in the law.

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<sup>6</sup> John P. Hubbard (1968), “A study of bird liming in Cyprus”