Cyprus bird trapping surveillance project: Spring 2012

Covering the latest findings of BirdLife Cyprus' continuing monitoring programme of illegal bird trapping in Cyprus

Report put together by BirdLife Cyprus Illegal Bird Killing Campaigns Officer Tassos Shialis

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Περίληψη

Τα επίπεδα παγίδευσης για την άνοιξη 2012 είναι μειωμένα, ιδιαίτερα όσον αφορά στη χρήση διχτύων. Αυτό αποτελεί ένα ενθαρρυντικό αποτέλεσμα για την αρχή του 2012 μόλις πριν την έναρξη της Προεδρίας της ΕΕ (το 2^{ο} εξάμηνο του 2012), ιδιαίτερα όταν πέρυσι, το έτος 2011, καταγράφηκαν επίπεδα ρεκόρ για την παγίδευση. Ο Πτηνολογικός αναγνωρίζει τις προσπάθειες των αρμοδίων αρχών για την πάταξη του φαινομένου για την άνοιξη 2012.

Η ανάλυση των δεδομένων πεδίου της άνοιξης 2012 έδειξε ότι η χρήση διχτύων μειώθηκε κατά 66% σε σύγκριση με την άνοιξη 2011. Παρόλα αυτά, η χρήση ξοβέργων αυξήθηκε δραματικά και ο Πτηνολογικός Σύνδεσμος Κύπρου πιστεύει ότι αυτό συνδέεται με το γεγονός ότι τα ξόβεργα θεωρούνται μια 'αθώα παραδοσιακή' πρακτική, παρά το γεγονός ότι η χρήση τους είναι παράνομη και μπορεί να είναι εξίσου καταστροφικά με τα δίχτυα.

Με εξαίρεση τα ξόβεργα, ο Πτηνολογικός θεωρεί ότι η αρχή του έτους είναι θετική. Συνάμα όμως, ο Πτηνολογικός εκφράζει και την επιφύλαξη του και καλεί τις αρμόδιες αρχές να καταρτίσουν συγκεκριμένα σχέδια δράσης για το ερχόμενο φθινόπωρο. Το φθινόπωρο είναι η κύρια εποχή της παγίδευσης και φέτος συμπίπτει με την Κυπριακή Προεδρία. Το 2009, οι καταγραφές πεδίου από το πρόγραμμα παρακολούθησης του Πτηνολογικού είχαν δείξει μείωση της ανοιξιάτικης παγίδευσης αλλά οι φθινοπωρινές καταγραφές έδειξαν μια δραματική αύξηση στα επίπεδα παγίδευσης. Κάτι παρόμοιο μπορεί να παρατηρηθεί και φέτος εάν δεν υπάρξουν συγκεκριμένα μέτρα.

Επιβάλλεται να υιοθετηθεί από τις αρμόδιες αρχές μια προσέγγιση 'μηδενικής ανοχής' η οποία να περιλαμβάνει τα ακόλουθα:

- Ενδυνάμωση του δυναμικού των αρχών πάταξης και την ανάληψη στοχευμένης και συνεχόμενης δράσης στα εστιατόρια που σερβίρουν *αμπελοπούλια*, και που είναι ο οικονομικός κινητήριος μοχλός αυτής της παράνομης δραστηριότητας,
- Επιβολή αποτρεπτικών δικαστικών ποινών προκειμένου να περάσει το μήνυμα ότι η παγίδευση πτηνών αποτελεί σοβαρή οικολογική απειλή για τα είδη πουλιών και τους πληθυσμούς τους, και

- Υλοποίηση μιας ενημερωτικής εκστρατείας για να αλλάξει η κοινή γνώμη για το θέμα, έχοντας ως στόχο το ευρύτερο αδιάφορο κοινό το οποίο συνάμα αγνοεί σε μεγάλο βαθμό τις οικολογικές προεκτάσεις της παγίδευσης πτηνών.

Είναι ξεκάθαρο ότι χρειάζεται ένα Στρατηγικό Σχέδιο Δράσης, με την συμμετοχή όλων των ενδιαφερόμενων φορέων, το οποίο θα καταρτίσει μια συντονισμένη και ολοκληρωμένη προσέγγιση και θα συμπεριλάβει τα πιο πάνω στοιχεία για την αντιμετώπιση του προβλήματος στη ρίζα του. Αυτό το Στρατηγικό Σχέδιο Δράσης θα πρέπει να ξεκινήσει το τρέχον έτος, εάν η Κυπριακή Δημοκρατία και το Ηνωμένο Βασίλειο επιθυμούν να δείξουν ότι υπάρχει η πολιτική βούληση και η δέσμευση για να σταματήσει αυτή η παράνομη δραστηριότητα, με ιδιαίτερη έμφαση στο επικοινωνιακό κομμάτι και μια εκστρατεία ενημέρωσης του κοινού.

Η Κυπριακή Προεδρία αποτελεί μια μεγάλη ευκαιρία για τη Δημοκρατία να σημειώσει πρόοδο στο συγκεκριμένο θέμα. Μια καλή αρχή θα ήταν ο αυξημένος έλεγχος στα εστιατόρια που σερβίρουν *αμπελοπούλια* κατά το προσεχές φθινόπωρο, ξεκινώντας από την αρχή της περιόδου επιδρομές σε αυτά που θα συνεχίσουν σε τακτά διαστήματα σε 'γνωστά' εστιατόρια που τα σερβίρουν μέχρι τον επόμενο χρόνο. Με αυτό τον τρόπο θα περάσει ένα ξεκάθαρο μήνυμα ότι τώρα πλέον εφαρμόζεται 'μηδενική ανοχή' κατά της παγίδευσης και ότι η Κύπρος στοχεύει στην εξάλειψη του προβλήματος.

Η αναφορά αυτή παρουσιάζει τα ευρήματα και τα συμπεράσματα του προγράμματος παρακολούθησης κατά της παράνομης παγίδευσης πτηνών του Πτηνολογικού Συνδέσμου Κύπρου για την άνοιξη 2012. Η αναφορά αποτελείται από τα ακόλουθα κεφάλαια:

- Κεφάλαιο 1 παρέχει μια επισκόπηση της παγίδευσης στην Κύπρο, κάνει μια ιστορική αναδρομή αυτής της δραστηριότητας, παρουσιάζει την τρέχουσα κατάσταση και κάνει αναφορά στην εθνική νομοθεσία που σχετίζεται με την προστασία των πτηνών,
- Κεφάλαιο 2 περιγράφει τη δημιουργία του προγράμματος παρακολούθησης του Πτηνολογικού,
- Κεφάλαιο 3 περιγράφει το πρωτόκολλο και τη μεθοδολογία που εφαρμόζεται,

- Κεφάλαιο 4 παρουσιάζει την τρέχουσα κατάσταση, την ανάλυση των καταγραφών πεδίου και τα επίπεδα παγίδευσης, τις προσπάθειες πάταξης των αρμοδίων αρχών και την γνώμη του κοινού για το συγκεκριμένο θέμα, και
- Κεφάλαιο 5 είναι η συζήτηση και τα συμπεράσματα, όπου εξηγούνται οι λόγοι που η παγίδευση πτηνών αποτελεί πλέον ένα πολύπλοκο πρόβλημα και δίνονται εισηγήσεις και προτάσεις για το μέλλον.

Summary

Spring 2012 has shown a decrease in trapping levels, particularly for mist netting activity. This is an encouraging outcome for the start of 2012 and prior to the EU Presidency of Cyprus (in the 2nd half of 2012), particularly since the previous year, 2011, showed record levels in trapping activity. The enforcement efforts of the competent authorities in spring 2012 are acknowledged.

The analysis of the field data for spring 2012 showed that mist netting activity decreased by 66% compared to spring 2011. However, limestick use has shown a dramatic increase which BirdLife Cyprus believes is connected to the fact that limesticks are considered a 'harmless traditional' practice, despite the fact that they are illegal and can be as damaging as mist nets.

Limestick problem aside, BirdLife Cyprus views this as a positive start to the year. But this view is expressed with necessary caution and BirdLife calls on the competent authorities to draw up specific action plans for the coming autumn season. Autumn is always the main trapping season, and this year it comes during the island's EU Presidency. In 2009, data from the surveillance programme of BirdLife Cyprus showed a decrease in spring trapping but this was followed by a dramatic increase in autumn trapping levels. A similar pattern could be observed this year if specific action is not taken.

A 'zero tolerance' approach needs to be adopted by the competent authorities and should include the following:

- Strengthening of the enforcement capacity and the undertaking of targeted and repeated action against the restaurants serving *ambelopoulia*, the economic driver of this illegal activity,
- Imposition of deterrent court sentences in order to get across the message that bird trapping poses a serious ecological threat to bird species and their populations, and

- Undertaking of an awareness campaign to change public opinion on the issue, targeting the largely indifferent audience which is also largely ignorant of the ecological aspects of bird trapping.

It is obvious that a Strategic Action Plan, involving all stakeholders, is needed in order to draw up a coordinated and holistic approach that would incorporate the above-mentioned key elements to tackle the problem at its root. The drawing up of the Strategic Action Plan should begin in the current year if the Republic of Cyprus and UK government wish to show that there is the political will and commitment to stop this illegal activity, with a particular focus on the communications and public awareness campaign.

The EU Presidency of Cyprus presents a great opportunity for the Republic to make progress on this issue. A good start would be to increase enforcement on the restaurants serving *ambelopoulia* during the coming autumn, starting early in the season and then undertaking frequent raids on known problem establishments until the following year. This would pass a clear message that a 'zero tolerance' approach is now being implemented and that Cyprus is serious about eliminating the problem.

This report presents the findings and conclusions of the surveillance programme on illegal bird trapping of BirdLife Cyprus for spring 2012. The report is separated into the following sections:

- Section 1 provides an overview of the bird trapping in Cyprus, gives some historical background to this activity, presents the current situation and makes reference to the national legislation regarding bird protection,
- Section 2 gives a historical outline of the surveillance programme of BirdLife Cyprus,
- Section 3 describes the surveillance protocol and the methodology applied,
- Section 4 describes the current situation, presents the analysis of the field data and the trapping activity levels, refers to the enforcement efforts of the competent authorities and describes the social attitudes with regards to the subject, and
- Section 5 is the discussion, explaining the reasons why bird trapping has become a complicated issue and providing suggestions on the way forward.

1. Overview of bird trapping in Cyprus

Historically practiced to supplement a meager peasant diet, bird trapping is today a large-scale slaughter for high profits. Bird trapping with the use of limesticks in Cyprus was firstly recorded during the 8th century BC. This practice has also been documented during the Middle Ages when trapped birds would be considered a traditional delicacy for export commodity or it would be a food supplement for what were then mostly poor island inhabitants living off the land.

Nowadays bird trapping with limesticks and mist nets is no longer a practice undertaken by few impoverished and malnourished peasants but has become an illegal and profitable business worth in the order of millions of euros (Game Fund, 2010, Position Letter). Bird trapping has been illegal in Cyprus since 1974 with the adoption of relevant national legislation, and with the accession of Cyprus into the EU the Birds Directive (2009/147/EC, formerly 79/409/EEC) has been transposed into national legislation (N.152(I)/2003).

Both the Cyprus national legislation (Section VIII, N.152(I)/2003) and the Birds Directive (Article 8, 2009/147/EC) clearly state that it is prohibited to use means or methods for the large scale or nonselective capture or killing of birds, including limesticks and mist nets. The penalties imposed according to the national legislation could reach a maximum of 3 years imprisonment and / or 17,000 euros court fine, making it one the strictest national penalty systems in place within the EU but in practice the court fines are low and non-deterrent.

Limesticks and mist nets are non-selective methods of bird trapping and records have shown 152 bird species have been trapped in them, 78 of which are listed as threatened by BirdLife International and/or under the Birds Directive[1] (see Appendix 1). Moreover, these non-selective methods are extensively employed across the island contributing to large scale capture and killing of birds, in the order of millions of birds every year. For the year 2011, BirdLife Cyprus estimated from data gathered from its systematic surveillance programme that over 2.8 million birds were killed. Although this is an

[1] The list has been compiled using various sources: Hubbard J.P. (1968), Magnin G. (1987), Flint & Stewart (1992), BirdLife Cyprus (2003).

estimate, it highlights the extensive use of illegal bird trapping in Cyprus and in combination with the non-selective nature of these methods, it poses a serious ecological risk.

Illegal bird trapping in Cyprus has become an intractable and complicated problem that is largely controlled by organized crime and is driven by the market forces of demand and supply, with restaurateurs offering illegally trapped birds, locally called *ambelopoulia*, at prices of 60 Euros or more per dozen. Trapping activity has been on an increase since 2007, mainly due to the economic incentives of this illegal activity and competent authorities need to urgently take decisive action to reverse this situation before all the positive results achieved in the last decade are lost.

2. Historical background of BirdLife Cyprus surveillance programme

The monitoring programme for illegal trapping follows a “Bird trapping protocol” that has been developed and implemented by BirdLife Cyprus and the RSPB (BirdLife partner in UK) since autumn 2002, in consultation with the Game and Fauna Service and the British Sovereign Base Area (SBA) police. Figure 1 shows a map where bird trapping takes place in Cyprus; monitoring is concentrated in the two areas (numbered 1 and 2) where extensive trapping takes place:

1. Kokkinochoria area (Eastern Larnaca/Famagusta area) – this area also includes the Dhekelia Eastern Sovereign Base (ESBA) area), and
2. Ayios Theodoros and Maroni area (Western Larnaca).

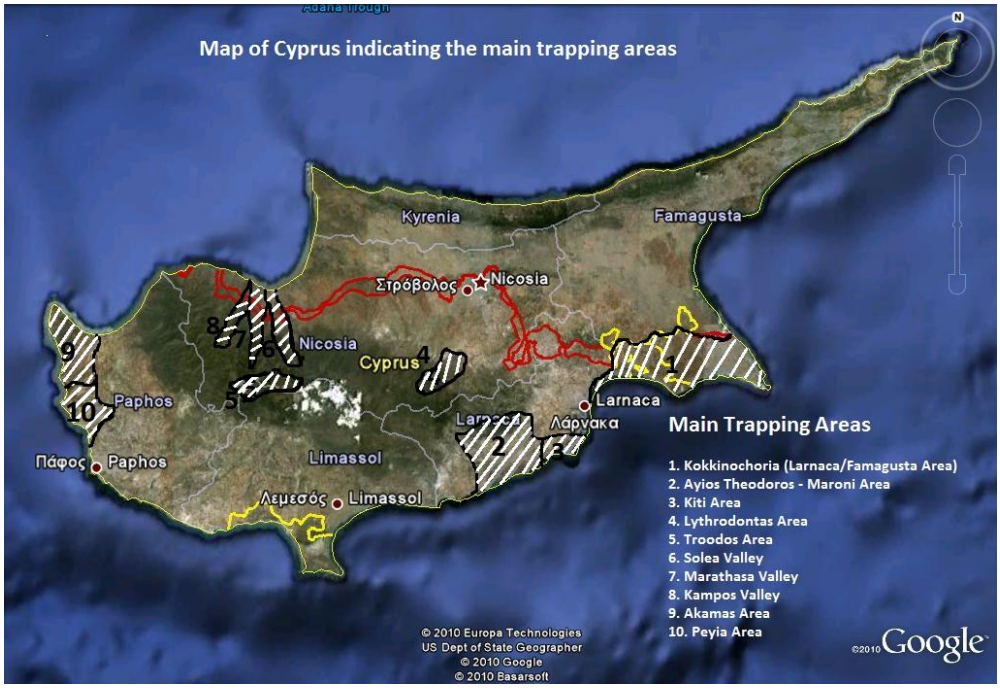

Figure 1 Map of Cyprus showing the main trapping areas

Although trapping is also undertaken in other areas of Cyprus, the survey area covers only these two main areas due to resource limitations.

The surveillance programme is carried out during spring and autumn seasons when the bird migration is taking place. The main trapping season is the autumn, when the largest numbers of birds pass through Cyprus on their way to winter grounds. The trappers are

mainly after Blackcaps (*Sylvia atricapilla)* and other migrant songbirds, destined to be served as expensive *ambelopoulia* delicacies in local restaurants or for home consumption. Additionally since 2007, winter monitoring is also undertaken to survey for winter trapping when the wintering Song Thrushes (*Turdus philomelos)* are specifically targeted.

The project is undertaken with the close co-operation of the competent authorities of the Republic of Cyprus (the Game and Fauna Service and the Anti-poaching unit of the Cyprus Police) and the British Sovereign Base Areas (SBAs) Police. In the event of locating trapping paraphernalia, the BirdLife Cyprus team immediately contacts the relevant enforcement authorities. It should be highlighted that the BirdLife Cyprus observers never confront suspected trappers and never remove trapping paraphernalia. BirdLife Cyprus would like to thank in particular the RSPB for supporting financially the surveillance project since the beginning.

3. Methodology

The surveillance programme started in autumn 2002 and was revised in 2005 and 2007 to include a larger survey area, bringing the total survey area to 406 km^2, covering the two main areas where extensive bird trapping activity takes place in Cyprus, the Eastern Larnaca/ Famagusta districts and the Ayios Theodoros – Maroni area.

The monitoring of trapping is undertaken by visiting a random selection of sample squares (1x1 km^2) during daytime hours. The number of squares has been stratified to ensure a representative coverage of areas under SBA administration, the Republic of Cyprus and "Joint" jurisdiction (these are squares in which the two jurisdictions meet). The BirdLife Cyprus team visits each square and records trapping activity, both with regards to mist netting and limesticks. However it is highlighted here that the surveillance programme of BirdLife Cyprus focuses mainly on mist netting activity, with limesticks recorded if they are found while searching for mist nets. This is due to the time consuming effort needed to locate limesticks and the lack of resources of the organisation.

Appendix 2 contains more details on the methodology and photos of trapping paraphernalia. The methodology focuses on identifying net rides where mist nets could be set and which are classified as active or inactive based on the evidence *in situ*. The main net classifications for active net rides include Prepared (P), Active No Net (ANN), Active Unset Net present (AUN) and Active Set Net present (ASN) (more details in Appendix 2).

4. Current situation

Spring 2012 survey results

The field survey for spring 2012 was carried out between March and early May 2012 following the standard survey protocol. In total 40 squares[2] were surveyed during this period, out of which 36 have been consistently monitored since 2007. In keeping with BirdLife's standard practice, the survey team immediately reported all trapping finds to the relevant enforcement authorities, either the SBA Police or the Game and Fauna Service / Anti-poaching Unit of Cyprus Police, depending on the location of the finds.

The summary of the field data for spring 2012 is presented in Appendix 3. In total the findings of the survey included 387 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), 12 mist nets found *in situ* (either classified as Active Set Nets or Active Unset Nets[3]), 142 limesticks and 45 birds found trapped including Blackcaps (*Sylvia atricapilla*), Ruppell's Warbler (*Sylvia rueppelli*), Lesser Whitethroat (*Sylvia curruca*), Chiffchaff (*Phylloscopus collybita*), Spectacled Warbler (*Sylvia conspicillata*) and in one case a Scops Owl (*Otus scops cyprius*), one of the 4 endemic subspecies of Cyprus. Opportunistic checks outside the survey squares detected an additional 125 metres of active net rides and 5 mist nets *in situ* (see Appendix 3).

Figure 2 shows the long term trends in spring trapping activity (using mist nets and limesticks) for the 36 squares that have been consistently surveyed since 2007[4]. The analysis shows that:

- Mist netting activity for spring 2012 decreased by 66% compared to spring 2011,
- The number of mist nets found *in situ* for spring 2012 increased by 71% compared to spring 2011. This is the highest number of mist nets *in situ* recorded over the last 6 spring seasons as shown in Figure 2,

[2] 28 squares surveyed were in RoC areas, 9 in SBA areas and 3 were "Joint" squares.
[3] Active Set Net (ASN) is a net ride where the mist net is *in situ* and is set and ready for catching birds. Active Unset Net (AUN) is a net ride where the mist net is *in situ* but is furled i.e. the mist net is not stretched up for catching birds but lowered down.
[4] Trapping activity includes: a) mist netting activity – the total length of active net rides, and b) limesticks – the total number of limesticks, found.

- A total number of 140 limesticks was recorded for spring 2012, in comparison to zero finds for spring 2011 and previous seasons, all located in areas under the control of the Republic of Cyprus (the last time limesticks were recorded was in spring 2007). Although BirdLife Cyprus does not focus its field survey on the detection of limesticks, this increase in limestick use within the Republic is also confirmed by other organisations. For example, a total of 4,439 limesticks were located in spring 2012 during a joint field survey of CABS and FoE Cyprus, all finds located in the Republic (CABS & FoE Cyprus, 2012). Similarly the MBCC organization (Migratory Birds Conservation in Cyprus) reported finding more than 2000 limesticks for spring 2012 in the eastern Famagusta district (Paralimni, Protaras, Agia Napa areas).

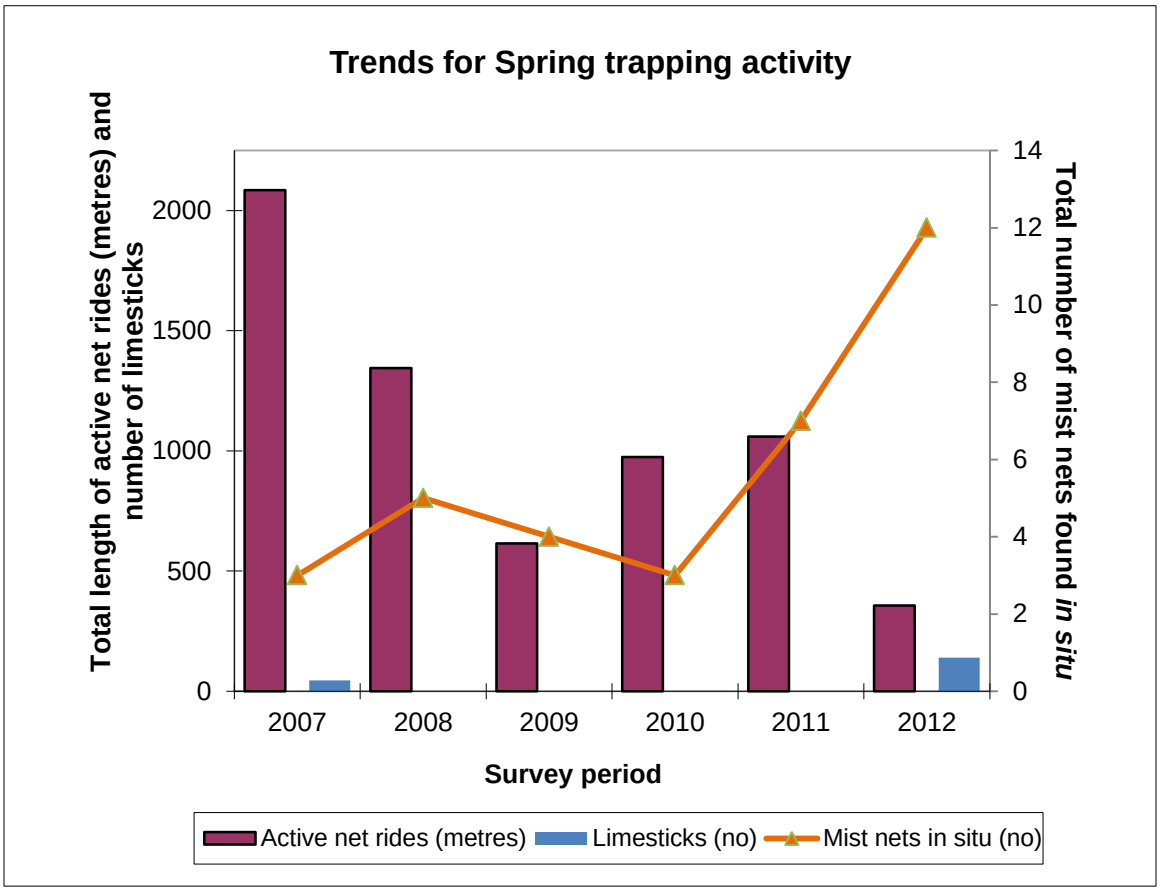

Figure 2 Long term trends in spring trapping activity using mist nets and limesticks

Figure 3 summarises spring trapping activity using mist nets under different jurisdictions for all the squares surveyed in each period:

- For Republic areas, spring 2012 showed a decrease of 76% in trapping activity using mist nets compared to spring 2011,
- For the SBA areas, spring 2012 trapping activity showed a decrease of 84% compared to spring 2011. As a further positive step, trapping levels in the SBA areas have decreased to nearly similar levels as in the Republic, reversing the pattern of previous years where mist netting levels would be much higher in SBA areas compared to the Republic,
- For "Joint" areas, spring 2012 showed a decrease of 47% compared to spring 2011 (these are squares where the SBA and RoC jurisdictions meet within the same square).

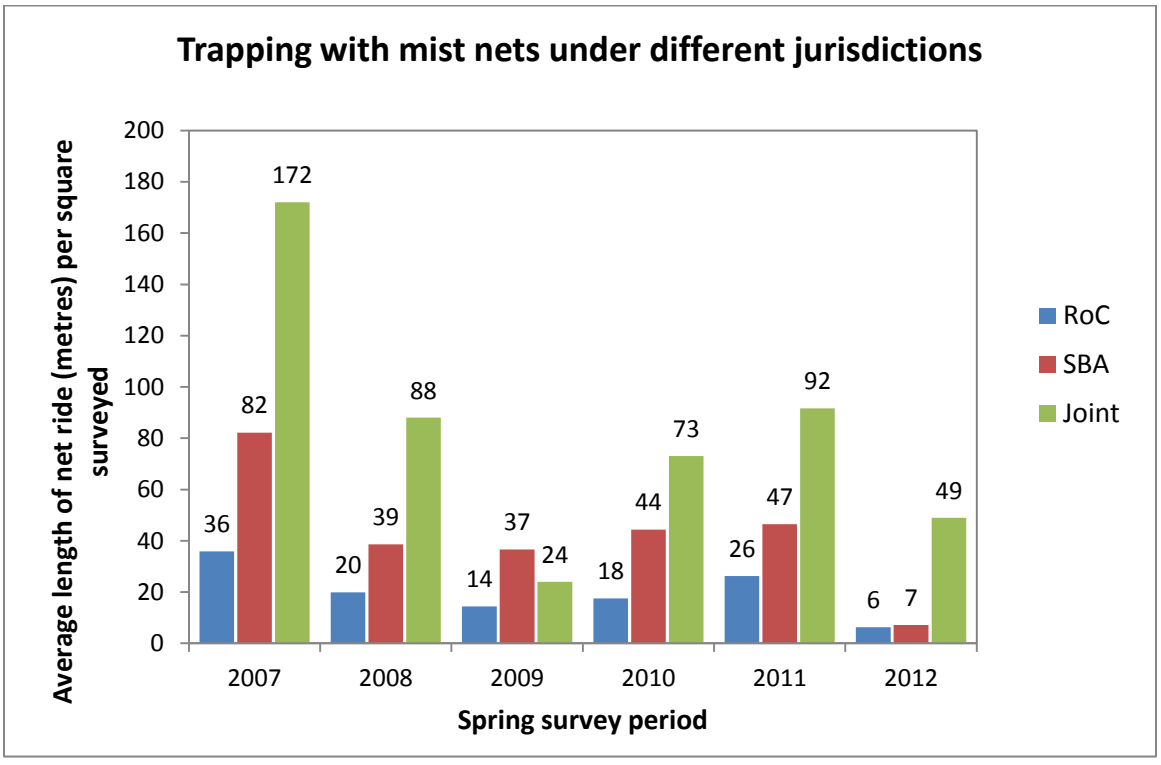

Figure 3 Trapping levels using mist nets under different jurisdictions for the spring period

Overall it is estimated that over 124,500 birds were killed within the survey area and over 166,000 were killed across the whole of Cyprus (see Appendix 4) for spring 2012.

Enforcement

Table 1 summarises the number of reports that BirdLife Cyprus provided to the competent authorities regarding active trapping sites and the overall feedback provided from the competent authorities. It is noted that the information presented in the table below is referring to trapping sites where a net (or more) were found *in situ*, either set (Active Set Net, ASN) or unset (Active Unset Net, AUN), or limesticks present. On many occasions trapping paraphernalia are found (e.g. pole bases, poles, carpets, wires, loudspeakers) and for the field survey these sites may be recorded as having Prepared (P) or Active No Net (ANN) rides (see Appendix 2 for net classification). However due to resource limitations the competent authorities prioritise on locations that are classified as ASN or AUN or limesticks are present and BirdLife Cyprus has agreed to report these cases as a matter of priority. Information on P and ANN sites are also provided by BirdLife Cyprus to the competent authorities but it is upon the enforcement body to decide whether this information will be further investigated.

Table 1: Summary of reports provided to competent authorities from BirdLife Cyprus during Spring 2012

	Game and Fauna Service	**SBA Police Unit**	**Cyprus Anti- Poaching Police Unit**
Total number of reports	15	2	-
Prosecutions	3 (20%)	1 (50%)	-
Confiscations	6 (40%)	-	-
Nothing found[1]	6 (40%)	1 (50%)	-

Note 1: 'Nothing found' refers to cases where the competent authority checked the trapping location but reported it inactive (no nets or limesticks *in* situ) upon its visit, therefore no prosecution or confiscation has taken place.

In relation to the Game and Fauna Service, out of the 15 reports provided 9 of them (60%) resulted in either a prosecution of trapper(s) or a confiscation of trapping paraphernalia (nets or limesticks). With regards to the SBA Police Unit, out of the 2 reports given 1 resulted in a prosecution. Overall the efforts of the competent authorities for spring 2012 are acknowledged.

However from the feedback provided from the competent authorities it is clear that the response time to our reports is generally poor, ranging from 1 day to more than 1 week,

in particular with regards to the Game and Fauna Service. A quicker response time might lead to more confiscations/arrests.

The following table summarises the statistics data provided by the Game and Fauna Service regarding prosecutions for illegal bird trapping across the island for the period 28th March to 31st May 2012 i.e. 2 months. It is noted that the following table does not include cases where trapping paraphernalia was confiscated without a case being opened, which would increase the number of mist nets and limesticks confiscated. An additional 10 prosecutions were reported by the Game and Fauna Service related to poaching incidents (e.g. illegal shooting of game or wild birds), making a total number of 16 prosecutions for this period.

Table 2: Summary statistics table of spring 2012 (April and May) illegal bird trapping cases of Game and Fauna Service

District	**Prosecutions**[1]	**Mist nets confiscated**	**Limesticks confiscated**	**Decoys confiscated**
Famagusta[2]	3 (3)		460	2
Larnaca[2]	1 (1)	10	436	
Lefkosia				
Lemesos				
Pafos	2 (2)	2	108	
Total	**6 (6)**	**12**	**1004**	**2**

Note 1: In brackets the total number of people prosecuted.
Note 2: The two main districts where illegal bird trapping takes place and where the surveillance programme of BirdLife Cyprus is focused.

It therefore becomes evident that a significant part of Game and Fauna Service resources (10 out of 16 prosecutions reported for months April and May) is concentrated on poaching activity (and not on illegal bird trapping activity), despite the fact that spring trapping activity takes place during these months. It is clear that enforcement of illegal bird trapping must be prioritised during the months it takes place, particularly since the resources of the Game and Fauna Service are limited, and resources should be targeted and utilised more efficiently to tackle this problem.

The following table summarises the statistics data provided by the SBA Police prosecutions for illegal bird trapping within the Dhekelia SBA area for April and May. It is noted that an additional 3 prosecutions took place that were associated with poaching

incidents. A similar pattern to the Game and Fauna Service is noticed here, where resources are prioritised on anti-poaching measures during the trapping seasons. BirdLife Cyprus believes that resources should be prioritised on anti-trapping measures instead.

Table 3: Summary statistics table of spring 2012 (April and May) illegal bird trapping cases within the Dhekelia SBA (Eastern) division

	Prosecutions[1]	**Mist nets confiscated**	**Limesticks confiscated**	**Decoys confiscated**
ESBA	1	6		1

A key part of the enforcement chain is indisputably the prosecution process and the court sentences imposed. Although the Cyprus law (N.152(I)/2003) is strict and court sentences can be up to 3 years imprisonment and/or 17,000 euros, in practice these maximum penalties have never been applied and on average court fines for illegal trapping are between 600-800 euros (Game and Fauna Service, 2011), a non-deterrent fine in relation to the profits made from this activity. However, a 10,000 Euro court fine was imposed on a restaurateur in November 2011[5], a positive step towards the imposition of deterrent fines.

Finally, the restaurants that serve illegally the trapped birds need to be tackled with more efficiently and with effectiveness. In autumn 2011 enforcement on the restaurants was sporadic and delayed, with only 2 organised restaurant raids taking place, one in November and one in December. The majority, if not all the restaurants, are found in the Republic of Cyprus, and the Game and Fauna Service and the Anti-poaching unit of Cyprus Police need to prioritise their enforcement efforts. A targeted action plan must be drawn up for the restaurants serving *ambelopoulia* and be implemented during this coming autumn, when Cyprus will be hosting the EU Presidency. This action should include more frequent and early-season raids continuing into the following year, showing that there is the political support for a 'zero tolerance' approach.

Social attitudes

Illegal bird trapping is usually an issue that the media covers to a certain extent, particularly during the trapping periods (winter, spring and autumn). The majority of the

[5] More than 2,500 birds were found in a freezer at the premises of the restaurant during a large scale raid that took place in October 2010.

articles are supportive of the anti-trapping effort or they report the issue in a neutral manner, providing an update on the trapping activity as reported by BirdLife Cyprus and other environmental NGOs.

However the majority of the public is still indifferent to the trapping issue, ignoring the ecological impact that this non-selective and large scale killing practice contributes to. For many people the issue of illegal bird trapping is not yet as important as other ecological problems in Cyprus and the lack of political will to tackle this issue with greater action is an additional obstacle to changing public attitudes. In a recent discussion at the Cyprus Parliament (March 2012) with regards to a proposal by Game and Fauna Service to introduce amendments to the national law on birds (N.152(I)/2003) in order to make it more effective, some Members of the Parliament that are supportive of bird trapping, proposed to include text that would in essence make the law less strict with regards to illegal bird trapping. Both the Game and Fauna Service and BirdLife Cyprus argued against these proposals but sadly they are still being discussed at a Parliamentary level.

5. Discussion

The analysis of the field data for spring 2012 has shown that trapping activity with mist nets decreased, recording the lowest levels in mist netting for the last 6 spring seasons. The enforcement authorities deserve congratulations for this. Although this is an encouraging outcome for the start of 2012, autumn is the key trapping season. A similar pattern was observed in 2009, when the spring trapping activity with mist nets showed a significant decrease but the following autumn showed increased trapping activity levels compared to the previous years (2007 and 2008).

With regards to limesticks, the field data of BirdLife Cyprus show that there is resurgence in their use. Although the surveillance programme of BirdLife Cyprus does not focus on limesticks *per se* and reliable trends cannot be deduced, these findings are backed up from field data of other environmental NGOs, notably FoE Cyprus and CABS: A total of 1,977, 3,353 and 4,439 limesticks were located in springs 2010, 2011 and 2012 respectively, all detected during their 2-3 week field surveys undertaken each season in Cyprus. The majority, if not all the limesticks, were found in areas of the Republic. It is obvious that these numbers are much higher than the confiscations of limesticks reported by Game and Fauna Service (see Table 2) for April and May and more effective action is needed.

BirdLife Cyprus believes that the resurgence in limesticks is connected to the fact that limesticks are considered a 'harmless traditional' practice by many. This is also connected to the leniency that competent authorities reportedly show sometimes towards trappers with limesticks, giving the message that it is an 'acceptable' trapping method despite the fact that it is illegal and highly damaging.

A 'zero tolerance' approach needs to be adopted by the competent authorities, encompassing all the aspects of this illegal activity such as:

- Strengthen the enforcement capacity and undertake targeted action on the restaurants serving *ambelopoulia*, the economic driver of this activity, particularly early on at each trapping season and especially the autumn season (restaurants should be targeted October to December),

- Implement the Cyprus law at its full extent during the prosecution process, imposing deterrent court fines and hence passing the correct message that bird trapping poses a serious ecological threat to bird species,
- Undertake an awareness campaign to change the public opinion on the issue, targeting the largely indifferent audience which is also ignorant of the ecological aspects of bird trapping.

It is clear that a Strategic Action Plan is necessary to address the intractable problem of illegal bird trapping in a holistic way, engaging all the relevant stakeholders in a coordinated effort to eliminate it. The drawing up of this Strategic Action Plan should begin in the current year if the Republic of Cyprus and UK authorities wish to show that there is the political will and commitment to stop this practice, with a particular focus on the communications and public awareness campaign. Furthermore, the competent authorities should take further measures for the coming autumn trapping season, which coincides with the Cyprus EU presidency, to ensure that the positive results of this spring are maintained. If this is not achieved and another autumn of high bird trapping levels results, this will constitute, first and foremost, more bad news for Europe's birds and, secondly, bad news for Cyprus' image during the EU presidency.

Reference List

BirdLife Cyprus (2003) ‘Bird trapping in Cyprus Autumn 2002 – a report by BirdLife International’.

CABS & FoE Cyprus (2012) ‘Spring 2012 Cyprus Bird Protection Camp – Field report 13.04 – 06.05.2012’.
Flint & Stewart (1992) ‘The birds of Cyprus’.

Game and Fauna Service (2010), Position Letter with title ‘Amendment of the legislation regarding the Protection and Management of Wild Birds and Game’.

Game and Fauna Service (2011), Presentation by Pantelis Hadjiyerou (Head of Game and Fauna Service) during the ‘European Conference on Illegal Killing of Birds’ (July 2011, Larnaca, Cyprus).

Hubbard J.P. (1968) ‘A study of the bird liming in Cyprus’.

Magnin G. (1987) ‘An account of illegal catching and shooting of birds in Cyprus during 1986’.

Appendix 1

List of trapped birds on mist nets and limesticks

* indicates the 78 threatened bird species (of the total of 152 found trapped from records) listed under the EU Birds Directive and / or BirdLife International

Herons
Little Bittern*
Black-crowned Night Heron*
Squacco Heron*

Buzzards, eagles, vultures
Pallid Harrier*
Hen Harrier*
Western Marsh Harrier*
Montagu's Harrier*
Eurasian Sparrowhawk
Norhern Goshawk

Falcons
Lesser kestrel*
Common Kestrel*
Red-footed falcon*
Merlin*
Eurasian Hobby
Peregrine Falcon*

Patridges, pheasants
Common Quail*
Chukar*
Black Francolin*

Rails, crakes, coots
Water Rail
Little Crake*
Common Moorhen
Spotted Crake*

Waders
Eurasian Stone-curlew*

Sandpipers, snipes
Eurasian Woodcock*

Pigeons, doves
European Turtle Dove*
Eurasian Collared Dove

Cuckoos
Common Cuckoo
Great Spotted Cuckoo

Owls
Barn Owl*
Cyprus scops owl*
Little Owl*
Short-eared owl*
Long-eared Owl

Nightjars
European Nightjar*

Swifts
Common swift

Kingfishers, beeeaters, allies
Eurasian Hoopoe*
Common Kingfisher*
European Bee-eater*
Blue-cheeked Bee-eater
European Roller*

Woodpeckers
Eurasian Wryneck*

Larks
Greater Short-toed Lark*
Calandra lark*
Eurasian Skylark*
Woodlark*
Crested Lark*
Bimaculated Lark
Lesser short-toed lark*

Swallows, martins
Common House Martin*
Sand Martin*
Barn Swallow*
Red-rumped Swallow

Pipits, wagtails
Tawny Pipit*
Yellow Wagtail
White Wagtail
Meadow Pipit
Tree Pipit
Red-throated Pipit
Water Pipit
Grey Wagtail
Citrine Wagtail
Richard's Pipit

Wren, dippers
Wren

Accentors
Dunnock

Thrushes
Rufous-tailed Scrub Robin*
Bluethroat*
Common Redstart*
Northern Wheatear*
Cyprus wheatear*
Eastern Black-eared Wheatear*
Rufous-tailed Rock-Thrush*
Blue Rock Thrush*
European Robin

Thrush Nightingale
Common Nightingale
Western Black Redstart
Whinchat
Eurasian Stonechat
Finsch's Wheatear
Eurasian Blackbird
Song Thrush
Fieldfare
Ring Ouzel
Isabelline Wheatear

Warblers
Eastern Olivaceous Warbler*
Olive-tree warbler*
Cyprus warbler*
Ruppell's Warbler*
Eastern Orphean Warbler*
Barred warbler*
Western Bonelli's Warbler*
Wood warbler*
Moustached warbler*
Savi's Warbler
Sedge Warbler
Eurasian Reed Warbler
Great Reed Warbler
Icterine Warbler
Garden Warbler
Eurasian Blackcap
Common Whitethroat
Lesser Whitethroat
Sardinian Warbler
Subalpine Warbler
Spectacled Warbler
Willow Warbler
Common Chiffchaff
Zitting Cisticola
Marsh Warbler
Cettis Warbler
Eurasian River Warbler

Flycatchers
Spotted flycatcher*
Red-breasted flycatcher*
Semicollared flycatcher*
Collared flycatcher*
Eurasian Pied Flycatcher

Tits
Eurasian Penduline Tit
Cyprus coal tit*
Great Tit
Bearded Reedling

Treecreepers
Cyprus short-toed tree-creeper*

Shrikes
Red-backed shrike*
Lesser grey shrike*
Masked shrike*
Woodchat shrike*

Crows
Eurasian Magpie

Starlings
Common Starling*

Orioles
Eurasian Golden-Oriole

Sparrows
House Sparrow*
Spanish Sparrow
Rock Sparrow

Finches
Eurasian Linnet*
Common Chaffinch
European Greenfinch
European Goldfinch
European Serin
Hawfinch
Red-fronted Serin
Common Redpoll
Trumpeter Finch*
Eurasian Siskin
Red Crossbill

Buntings
Cinereous bunting*
Cretzschmar's Bunting*
Black-headed bunting*
Corn Bunting*
Ortolan Bunting*
Pine Bunting
Yellow-breasted Bunting*
Yellowhammer
Common Reed Bunting
Rock Bunting*

Appendix 2
Methodology of the trapping surveillance programme

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^2 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.

Then, in 2007, the survey area was expanded to cover 295 km^2 for Famagusta/Eastern Larnaca area and 111 km^2 for Ayios Theodoros – Maroni area, bringing the total survey area to 406 $km^{2.}$ This was done after preliminary surveys in autumn 2006 found evidence of extensive trapping on the margins of the original (261 km^2) survey area. 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 406 1 km^2 squares of the expanded survey area, 301 have been classified as 'possible bird trapping area' squares.

The random selection of sample squares is stratified to ensure representative coverage of areas under SBA, Republic of Cyprus and "Joint" jurisdiction (squares where the two jurisdictions meet).

Surveying for trapping activity

Surveying consists of a two-man team systematically searching for evidence of illegal trapping activity in the randomly selected one by 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 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 in the surroundings of squares where mist netting is suspected. Trapping activity includes:

- a) mist netting activity, which is the main focus of the surveillance programme of BirdLife Cyprus. This is calculated using the total length of active net rides recorded within the survey area; and
- b) limesticks, using the total number of active limesticks found within the survey area.

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 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[6]. 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.

Box 1 Key to survey codes used for the field		
Net code	Habitat code	Tape lure code
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
IUN – inactive unset net present	O – olive	

[6]These codes are explained fully in detail in the Autumn 2002 Bird Trapping surveillance report

	M – maquis P – pomegranate K – carob Cy – cypress L – lentisk S – syrian plum	with tape lures B – car battery present

The main net classifications are described below:

- Prepared (P): A net ride that is clearly ready to be used but there is no evidence e.g. bird feathers, blood stains, thrown pebbles, to suggest illegal activity was taking place the previous night / morning (see Figure 4),
- Active No Net (ANN): A net ride that from the evidence found e.g. bird feathers, blood stains, thrown pebbles, indicates that illegal activity was taking place the previous night / morning but no net is present (see Figure 5),
- Active Unset Net present (AUN): A net ride where the trapper has left the mist net on the poles but it is furled i.e. the mist net is not stretched up for catching birds but lowered down (or the net is placed e.g. under a tree) (see Figure 6), and
- Active Set Net present (ASN): A net ride where the trapper has left the mist net set on the poles and it is ready for catching birds (see Figure 7).

Figure 4: Prepared (P) net ride

Figure 5: Active No Net ride (ANN) with blood stains found next to pole bases

Figure 6: Active Unset Net present (AUN) in acacia plantations managed extensively for mist netting

Figure 7: Active Set Net present (ASN) –corridors in orchards are ideal for mist netting

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^2 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.

Appendix 3
Spring 2012 field data

Evidence of illegal bird trapping activity found within survey squares for spring 2012 period

Confidential data – provided upon request

Evidence of illegal bird trapping activity found beyond survey squares for spring 2012 period

Confidential data – provided upon request

Appendix 4

Estimation of numbers of birds caught during spring 2012

The following key assumptions are applied for the estimation of the birds killed:

- 12 metres is the assumed average length for a mist net
- 20 birds are caught per 12-m net per day (Magnin, 1986[7])
- 0.5 birds are caught per limestick per day
- 60 days is the duration of the trapping period for spring and autumn seasons
- 301 are the possible bird trapping squares within the survey area as identified from the surveillance programme in 2007 (the random sample of squares surveyed by BirdLife Cyprus is taken from these 301 squares)
- 75% of illegal trapping activity for all of Cyprus takes place within the survey area (based on input from enforcement authorities and other experts)
- For P (prepared) nets it is assumed that they are active *every other day* while for ANN (Active No Nets), ASN (Active Set Nets) and AUN (Active Unset Nets) nets it is assumed that they are active every day during the trapping season
- 50% scaling factor – applied for springs to account for a lower number of migrating birds passing via Cyprus compared to the autumn.

Using the above assumptions the bird death toll is estimated as follows:

For nets = [(Total length of P category net rides/2) + (Total length of ANN+AUN+ASN rides)] / (average length of a net) x (20 birds per net per day) x (total number of 'possible bird trapping area' squares / number of squares surveyed) x (length of trapping season in days) x (50% scaling factor)

= [(197/2)+0+160+30] / (12) x (20) x (301/40) x (60) x (50%)

= **108,548 birds** caught within the survey area in **mist nets**.

For limesticks = (Total number of limesticks found) x (0.5 birds per limestick per day) x (total number of 'possible bird trapping area' squares / number of squares surveyed) x (length of trapping season in days) x (50% scaling factor)

= 142 x 0.5 x (301/40) x 60 x 50%

= **16,028 birds** caught within the survey area on **limesticks**.

In total **124,576 birds** can be estimated to have been caught in mist nets and on limesticks within the survey area during spring 2012. Assuming that the survey area accounts for 75% of the trapping activity in Cyprus, the bird death toll across Cyprus is:

[7] Magnin G. (1986) "An account of the illegal catching and shooting of birds in Cyprus during 1986". International Council for Bird Preservation

= 124,576 / 75%

= 166,102 killed in nets and on limesticks across all Cyprus during spring 2012.