



Cyprus bird trapping surveillance project: Spring 2011

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

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Περίληψη

Η ανοιξιάτικη καταμέτρηση για το 2011 πραγματοποιήθηκε κατά τη διάρκεια των μηνών Μάρτη και Απρίλη, συλλέγοντας δεδομένα από 41 τετράγωνα μεγέθους 1x1 τετραγωνικών χιλιομέτρων. Τα δεδομένα που συγκεντρώθηκαν είναι πολύ απογοητευτικά, δείχνοντας ότι αν δεν ενισχυθούν τα μέτρα πάταξης για να αντιμετωπιστεί ουσιαστικά η παράνομη παγίδευση πτηνών κατά την διάρκεια της φθινοπωρινής περιόδου, το 2011 πιθανόν να αποτελέσει ακόμα μια χρονιά “ρεκόρ” για την θανάτωση πουλιών. Όλα τα τεκμήρια παράνομης παγίδευσης που βρέθηκαν καταγγέλθηκαν στις αρμόδιες αρχές. Τα βασικά ευρήματα της έρευνας έχουν ως εξής:

- Συνολικά ελέγχθηκαν 41 τετράγωνα από την ομάδα του Πτηνολογικού Συνδέσμου Κύπρου, καταγράφοντας σχεδόν 1,5 χιλιόμετρο ενεργών / προετοιμασμένων διαδρομών για δίχτυα. Παρόλο που το πρόγραμμα παρακολούθησης του Πτηνολογικού είναι σχεδιασμένο να αποφεύγει παγιδευτές εν ώρα δράσης για λόγους ασφάλειας, καταγράφηκαν 18 δίχτυα (είτε στημένα ή μη στημένα), με περίπου 80 πτηνά παγιδευμένα πάνω τους (3 ζωντανά, τα υπόλοιπα νεκρά) και μια ενεργή ηχομιμητική συσκευή.
- Η ανάλυση για την μακροχρόνια τάση της παγίδευσης στο συνολικό μήκος των ενεργών διαδρομών (συγκρίνοντας 36 τετράγωνα που ελέγχονται συστηματικά από το 2002) παρουσίασε μια αύξηση το 2011 σε σχέση με την άνοιξη του 2010 και του 2009 της τάξης του 9% και 72% αντίστοιχα. Όσον αφορά τον αριθμό δικτύων που καταγράφηκαν κατά την διάρκεια της έρευνας στα 36 τετράγωνα, η αύξηση την άνοιξη του 2011 σε σχέση με την άνοιξη του 2010 και του 2009 ήταν της τάξης του 133% και 75% αντίστοιχα.
- Σχετικά με τις διάφορες περιοχές δικαιοδοσίας, η γενική εικόνα εξακολουθεί να είναι η ίδια όπως και σε προηγούμενες αναφορές του Πτηνολογικού Συνδέσμου Κύπρου, με τα τετράγωνα σε περιοχές κοινής δικαιοδοσίας («Κοινές») να είναι τα πιο «προβληματικά» και να έχουν τα

υψηλότερα επίπεδα παγίδευσης, ακολουθώντας οι Βρετανικές Βάσεις και περιοχές της Κυπριακής Δημοκρατίας. Η παράνομη παγίδευση για την άνοιξη του 2011 έχει επιδεινωθεί σε όλες τις διαφορετικές περιοχές δικαιοδοσίας:

- Αύξηση της παγίδευσης στην Κυπριακή Δημοκρατία, τις Βρετανικές Βάσεις και τις «Κοινές» περιοχές της τάξης του 50%, 5% και 26% αντίστοιχα σε σύγκριση με την Άνοιξη του 2010.
- Η παγίδευση στις Βρετανικές Βάσεις είναι σταθερά υψηλότερη από την Δημοκρατία (ανά ελεγχόμενο τετράγωνο). Ωστόσο, η ποσοστιαία διαφορά μεταξύ τους μειώθηκε από 154% για την άνοιξη του 2010 σε 77% για την άνοιξη του 2011, γεγονός που υποδηλώνει ότι αυτή η εικόνα μπορεί να αλλάζει.
- Εκτιμάται ότι πάνω από 368,900 πουλιά παγιδεύτηκαν σε δίχτυα εντός της περιοχής έρευνας κατά τη διάρκεια της άνοιξης 2011 (και πάνω από 491,000 πουλιά σε ολόκληρη την Κύπρο). Κατά την έρευνα βρέθηκε ένα δίχτυ με περίπου 50 παγιδευμένα πουλιά, όλα νεκρά.
- Μια νέα εκτίμηση του αριθμού των πτηνών που καταναλώνονται στα εστιατόρια, χρησιμοποιώντας τα στοιχεία δημοσκόπησης σχετικά με την κατανάλωση αμπελοπουλιών, προσδίδει περισσότερο κύρος στην εκτίμηση των θανατωμένων πτηνών από τα δεδομένα πεδίου για τα επίπεδα παγίδευσης. Και οι δύο εκτιμήσεις υποδηλώνουν ότι εκατοντάδες χιλιάδες πουλιά σκοτώνονται και καταναλώνονται κάθε χρόνο στην Κύπρο. Μια μικρή δημοσκόπηση κοινού του 2011 έδειξε συνάμα ότι η κατανάλωση αμπελοπουλιών ανάμεσα στο ευρύ κοινό βρίσκεται σε ψηλά επίπεδα.
- Ο χρόνος ανταπόκρισης από τις αρμόδιες αρχές σε καταγγελίες μας για εξοπλισμό παράνομης παγίδευσης που βρέθηκε στο πεδίο την άνοιξη του 2011 δεν ήταν ο αναμενόμενος, ειδικά από το Ταμείο Θήρας, γεγονός που υποδηλώνει ότι υπάρχει έλλειψη προσωπικού για ουσιαστική πάταξη του φαινομένου, παρόλες τις προσπάθειες από τους θηροφύλακες που πολλές φορές αντιμετωπίζουν δύσκολες συνθήκες.

Είναι προφανές από αυτή την εικόνα ότι η παράνομη δραστηριότητα παγίδευσης κατά την ανοιξιιάτικη περίοδο είναι σε μια συνεχή άνοδο τα τελευταία 2 χρόνια, παρόλο που τα επίπεδα παραμένουν χαμηλότερα από τα έτη 2007 και 2008. Συγχρόνως παρατηρείται ότι οι παγιδευτές γίνονται όλο και πιο αδίστακτοι και ατρόμητοι, αδιαφορώντας για τυχόν ποινική δίωξη ή σίγουροι ότι δεν θα διωχθούν. Οι αρχές πάταξης (Ταμείο Θήρας, Ουλαμός ενάντια στην Λαθροθηρία και η Αστυνομία των Βρετανικών Βάσεων) πρέπει επειγόντως να καταρτίσουν σχέδια δράσης για την αντιμετώπιση αυτού του ζητήματος, με κύριο στόχο τα εστιατόρια όπου υπάρχει ζήτηση για την παράνομη κατανάλωση των πτηνών. Παράλληλα υπάρχει ανάγκη για μαζική στοχευμένη ενημέρωση του κοινού και εκστρατεία ευαισθητοποίησης για το θέμα, η οποία πρέπει να ενστερνιστεί από τα ανώτερα πολιτικά επίπεδα για να επιτευχθεί αλλαγή της κοινής γνώμης. Ο Πτηνολογικός Σύνδεσμος Κύπρος από μέρος του είναι αποφασισμένος να καταβάλει κάθε δυνατή προσπάθεια για περισσότερη ευαισθητοποίηση του κοινού σχετικά με την παγίδευση.

Πέρυσι βιώσαμε ένα απaráδεκτο και πρωτοφανή εκτιμώμενο αριθμό παγιδευμένων πουλιών, φθάνοντας σχεδόν τα 2,5 εκατομμύρια πτηνά, το υψηλότερο των τελευταίων ετών, μια κατάσταση επιζήμια για τον εορτασμό του «Διεθνούς Έτους Βιοποικιλότητας», τη βιοποικιλότητα γενικότερα και ντροπιαστική για μια χώρα κράτος μέλος της ΕΕ. Φέτος, το "Ευρωπαϊκό Συνέδριο για την λαθροθηρία πτηνών» υπό την αιγίδα της Συνθήκης της Βέρνης θα πραγματοποιηθεί στην Κύπρο από τις 6 - 8 Ιουλίου, το πρώτο που διοργανώνεται σε Ευρωπαϊκό επίπεδο για το συγκεκριμένο θέμα. Ο Πτηνολογικός Σύνδεσμος Κύπρος πιστεύει ότι αυτό το συνέδριο είναι η τέλεια ευκαιρία για όλες τις αρμόδιες αρχές (τόσο για την Κυπριακή Δημοκρατία όσο και για τις Βρετανικές Βάσεις) να το χρησιμοποιήσουν ως νέο ξεκίνημα για την αντιμετώπιση της παγίδευσης των πτηνών, μέσω μιας σοβαρής στρατηγικής και σχεδίου δράσης με ορόσημο την Προεδρία της ΕΕ της Κύπρου που θα ξεκινήσει τον Ιούλιο του 2012. Ελπίζουμε επίσης οι πολιτικοί που θα παραστούν στο Συνέδριο να δουν την ευκαιρία για αντιμετώπιση του προβλήματος και να

αναλάβουν αποτελεσματική δράση, μέσω στοχευμένης ενίσχυσης των υπηρεσιών πάταξης, οικονομικής υποστήριξης μιας καμπάνιας ενημέρωσης, της επιβολής αποτρεπτικών προστίμων στους παρανομούντες και μηνυμάτων μηδενικής ανοχής προς τον τύπο. Διαφορετικά τα αποτελέσματα της άνοιξης του 2011 φαίνεται να υποδηλώνουν έντονα ότι το προσεχές φθινόπωρο θα αποτελέσει ακόμα ένα «ρεκόρ» για την παγίδευση πουλιών.

Summary

The spring 2011 survey was undertaken during March and April, gathering data for 41 sample 1x1 km squares. The data gathered are very discouraging, indicating that unless enforcement actions are stepped up to seriously clamp down illegal bird trapping activity during the main autumn season, 2011 will more than likely be another “record” year in bird death tolls. All evidence of trapping equipment found was reported to the competent enforcement authorities. The key findings of the survey are as follows:

- In total 41 squares were surveyed by the BirdLife Cyprus team, finding almost 1.5 km (1,475 metres) of active net rides. Despite the fact that our survey is for safety reasons designed to avoid finding trappers at work, 18 mist nets (set or unset) were found, with around 80 birds trapped in them (3 alive, the remaining dead) and one bird sound device playing.
- Long term trends for trapping by assessing the total length of active net rides (comparing 36 squares surveyed systematically since 2002) indicated an increase in spring 2011 in comparison to springs 2010 and 2009 of 9% and 72% respectively. With regards to the number of nets found during the survey in these 36 squares, the increase in spring 2011 in comparison to springs 2010 and 2009 is of the order of 133% and 75% respectively.
- With regards to the different jurisdiction areas, the general pattern is still the same as previously reported by BirdLife Cyprus, with “Joint” status squares (i.e. squares where jurisdiction is partly to the SBA and partly to the Republic of Cyprus) being the most problematic and having the highest levels in trapping activity, followed by Sovereign Base Area (SBA) and then the Republic of Cyprus. Illegal trapping activity for Spring 2011 has worsened in all jurisdiction areas:
 - Increases in trapping levels in RoC, SBA and Joint areas of 50%, 5% and 26% respectively compared to Spring 2010;

- Trapping in SBA is consistently higher than RoC areas (per square surveyed). However the percentage difference between them has decreased from 154% in spring 2010 to 77% in spring 2011, suggesting that this pattern may be changing.
- It is estimated that over 368,900 birds were caught in nets within the survey area during spring 2011 (and over 491,000 birds across Cyprus). During the survey one mist net was found with around 50 birds caught, all dead.
- A new estimate of numbers of birds eaten in restaurants, derived from opinion poll data on *ambelopoulia* consumption levels, lends weight to the estimate of bird death toll derived from field data on trapping levels. Both estimates suggest hundreds of thousands of birds are killed and eaten every year in Cyprus. A small opinion poll in 2011 also showed that *ambelopoulia* consumption is high within the general public.
- The response time from competent authorities to our reports of field trapping finds in the spring 2011 was not as anticipated, particularly from the Game Fund, suggesting relevant resources are stretched to breaking point, despite all the efforts made by Game Fund officers, often under difficult circumstances.

It is evident from this picture that spring trapping activity has been on a steady rise the last 2 years, even if levels remain lower than those in 2007 and 2008. At the same time it is observed that trappers are becoming more ruthless and fearless, being indifferent towards prosecution or being certain that they will not be prosecuted. The enforcement authorities (Game Fund, Anti Poaching Unit and SBA Police) urgently need to draw up action plans to tackle this issue, targeting the restaurants where there is demand for the illegal bird consumption. At the same time there is a need for a massive targeted public information and awareness raising campaign that should be embraced at the higher political levels in order to achieve a change in public opinion. BirdLife Cyprus is determined to do its best for awareness campaign on trapping.

Last year we witnessed an unacceptable and unprecedented bird death toll, reaching an estimated nearly 2.5 million birds, the highest of the last few years, as a detriment to the celebration of the “International Year of Biodiversity” and biodiversity overall and shameful for an EU member country. This year the “European Conference on illegal killing of birds” under the auspices of the Bern Convention will take place in Cyprus from the 6-8 July, the first to be organized at a European level regarding this issue. BirdLife Cyprus believes that this conference is the perfect springboard opportunity for all the competent authorities (both for the Republic of Cyprus and the SBA Administration) to use it as new start for tackling bird trapping through a serious strategy and action plan, using as a milestone the EU Presidency of Cyprus that will start in July 2012. We hope that the politicians who will attend the Conference will grab the opportunity for tackling the problem and will take effective action, through targeted reinforcement of the enforcement bodies, economic support for an information campaign, imposition of deterrent fines to trappers and messages of zero tolerance towards the press. Otherwise the 2011 spring findings appear to strongly suggest that the coming autumn will be another “record” year for bird trapping.

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. Many 'non-target' birds are known to die in the mist nets and on the limesticks trappers use, significantly increasing the conservation impact of trapping. Spring trapping, though generally at a lower level than autumn trapping, has added conservation impact due to the fact that spring migrants are on the way to their breeding grounds (prenuptial migration) and therefore mortality has a big impact on breeding success.

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 sound devices that reproduce bird song, which draw migrating birds into areas set with nets and/or sticks. Mist net use became widespread in the 1980s, while the extensive use of sound 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*, thrushes and other birds 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. However, a resurgence of smaller-scale limestick use has also been noted in recent years, a response to a generally (and unacceptably) more “permissive” climate when it comes to limesticks.

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 spring 2011 surveillance programme, the 9th successive spring 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 and the Royal Society for the Protection of Birds (RSPB – BirdLife in the UK), in consultation with 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 Anti poaching unit of 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 km² 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 km² for Famagusta/Eastern Larnaca area and 111 km² for Ayios Theodoros – Maroni area, bringing the total survey area to 406 km². This was done after preliminary surveys in autumn 2006 found evidence of extensive trapping on the margins of the original (261 km²) 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 km² 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 the spring of 2011, a smaller number of sample squares, 41 in total, was covered due to capacity limitations and the level of risk associated with some squares which were considered too high risk to allow surveillance (see explanation under 'Results' section). Of these 41 squares, 36 were squares taken from the sub-set of 44 squares covered every season, to allow trends in spring trapping to be concluded. The random selection of sample squares is stratified to ensure representative coverage of areas under SBA, Republic of Cyprus and "Joint" jurisdiction.

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.

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 detected¹. 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	

¹These codes are explained fully in detail in the Autumn 2002 Bird Trapping surveillance report

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 km² 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.

3. Results for spring 2011 period

The spring survey 2011 was carried out during March and April 2011 following the standard survey protocol, described above. In total 41 squares were surveyed during this period, 36 of which have been consistently monitored since autumn 2002, the first season when the programme for monitoring bird trapping began. In keeping with BirdLife's standard practice, the survey team immediately reported all mist net finds to the relevant enforcement authorities, the SBA Police or the Cyprus Game Fund / Police Anti-poaching Unit, depending on the location of the finds.

Appendix 1 presents all the survey data recorded concerning spring 2011 trapping activity for the 41 1 km² squares covered by the BirdLife Cyprus team. The survey team found almost 1.5 km (1,475 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). Of these, 940 metres were coded as "prepared" ("P") rides, 175 metres as "active no net" ("ANN"), 150 metres as "active set net" ("ASN") and 210 metres as "active unset nets" ("AUN") (see Table 1). Moreover, 18 mist nets were found (7 set and 11 furlled²) during the survey with at least 80 birds caught on them (3 alive and the remaining dead), including species such as sparrow (*Passer domesticus*), blackcap (*Sylvia atricapilla*), great spotted cuckoo (*Clamator glandarius*), common cuckoo (*Cuculus canorus*), hoopoe (*Upupa epops*) pied flycatcher (*Ficedula hypoleuca*) and spotted flycatcher (*Muscicapa striata*). On one net at least 50 birds, all dead, were found. Other findings include one sound device playing and a number of car batteries used for the sound devices. Opportunistic checks beyond the survey area (see Appendix 2) recorded an additional 80 metres of active net rides.

² "Furled" describes mist nets that are set on the poles but are not stretched up for catching birds and are lowered down.

Although no limestick use was detected during the survey by BirdLife Cyprus team (except for 5 old limesticks), the fieldwork carried out by FoE Cyprus and CABS³ during April 2011 found and reported to the competent enforcement authorities a total of 3,353 limesticks. They also found 15 mist nets and 12 electronic sound devices - all these findings are additional to the findings of BirdLife Cyprus. This clearly shows that limestick use was common during the spring of 2011, even if BirdLife Cyprus's survey method (which is focused on finding nets) did not show this.

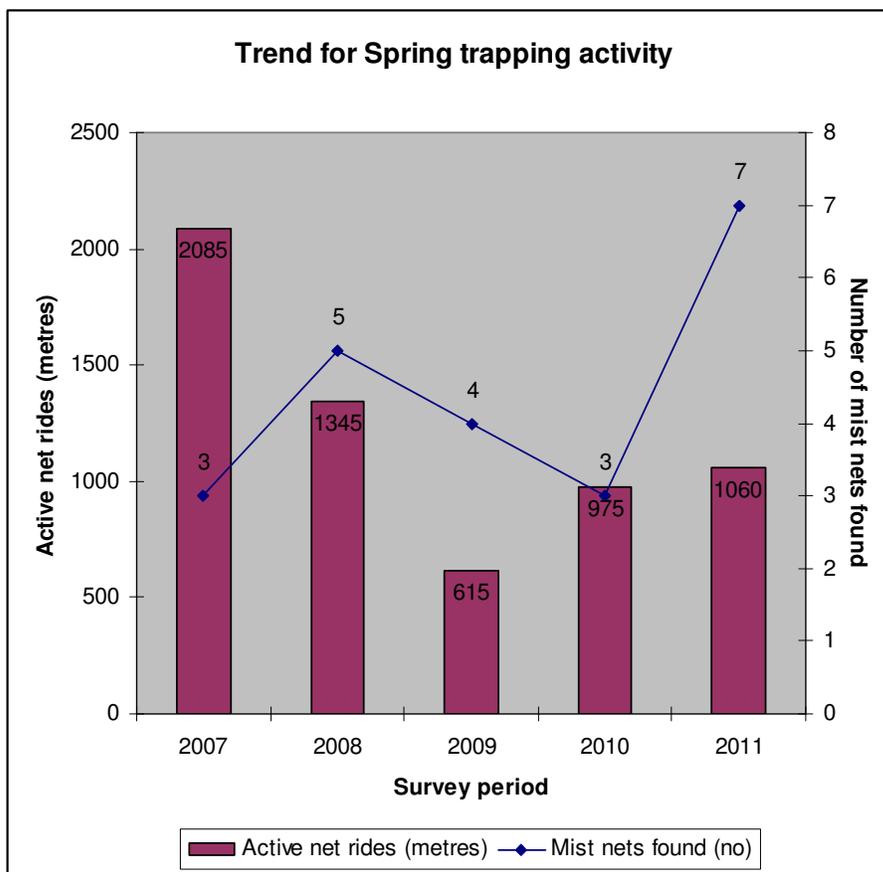
As mentioned above, this season 36 squares were surveyed that have been monitored consistently since autumn 2002. It is noted that the original number of squares monitored since 2002 is 44 and it was the intention of BirdLife Cyprus team to survey all 44 squares during spring 2011. However, from information provided in late April 2011 by FoE Cyprus³, some of those squares in the area around Protaras – Ayia Napa were avoided since they were considered “high risk” areas regarding safety (their field team had confronted and were threatened by, illegal trappers on a number of occasions) and one square in Cape Pyla area could not be checked due to firing practice from the SBA military.

Figure 1 below presents the trend in spring trapping activity for the 36 survey squares covered in spring 2011 and in the preceding 4 spring surveys (2007-2010). Figure 1 above suggests an increase in trapping activity over the last 3 years, though levels are lower than in 2007 or 2008 (using the total length of net rides recorded as the indicator). Spring 2011 findings for these 36 squares indicate an increase of 9% of the total length of active net rides and an increase of 133% of the number of mist nets found (set or furled) compared to Spring 2010. Comparing spring 2011 with spring 2009 the increase in total length of active net rides is even higher, 72%, while the increase in the number of mist

³ FoE Cyprus in collaboration with CABS (Committee Against Bird Slaughter) undertook a trapping surveillance campaign between 13 – 25 April 2011 in Eastern and Western Larnaca areas.

nets found was around 75%. It should be noted that the 6 squares that could not be covered in spring 2011 (considered high risk or for firing practice reasons) are well known “hotspots” for trapping activity and it is almost certain that the increases presented in Figure 1 for Spring 2011 would be even higher had they been checked (based on information provided from FoE Cyprus and CABS during their campaign).

Figure 1 Long term trend in spring bird trapping activity for period 2007 – 2011 for the 36 commonly surveyed squares



The Spring 2011 findings unfortunately confirm the increasing trend in trapping activity of the last few years, contradicting the picture observed during Winter 2010/11 of a declining trend and confirming the fears of BirdLife Cyprus as stated in the report on winter 2010/11 trapping: “...*this decrease does not, we believe, reflect a real (behavioral or cultural) change in illegal trapping...the reduction in*

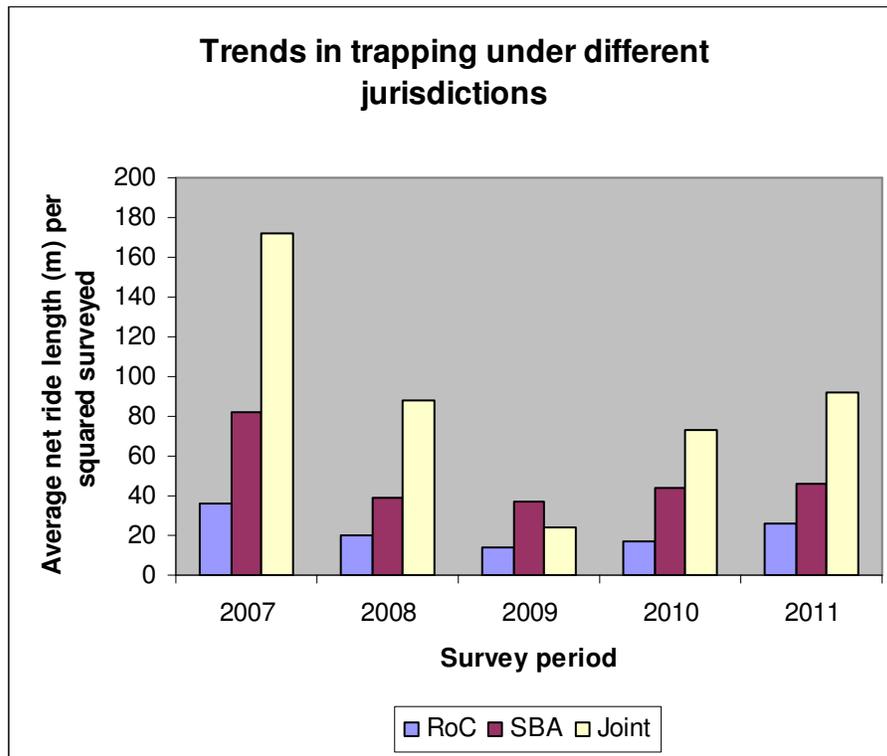
trapping activity in the winter of 2010-11 cannot be attributed to enforcement alone. During the winter period 2010-11, the numbers of wintering Song thrushes (Turdus philomelos) were low, as indicated by BirdLife Cyprus bird records and acknowledged by hunters and the Game Fund. Illegal trappers would have noticed this and most likely did not set as many nets or limesticks, since the catch would probably be low” (BirdLife Cyprus, April 2011)⁴.

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 41 squares surveyed during spring 2011, 28 squares were in RoC, 10 in SBA and 3 of Joint status. Figure 2 presents the trapping under different jurisdictions for the Spring season for the period 2007-2011 by calculating the average net ride length (prepared and active) per square surveyed for that jurisdiction:

= sum of length of net rides found / number of squares surveyed
= 735 / 28 (e.g. RoC for spring 2011)
= 26 metres / square surveyed.

⁴ BirdLife Cyprus (April 2011) “Cyprus bird trapping surveillance project: Winter 2010/11”

Figure 2 Trapping levels under different jurisdictions for spring period 2007-2011



The pattern arising from this figure is evident: “Joint” status squares have the highest levels in trapping activity (the only exception was 2009), followed by SBA and then the Republic of Cyprus areas. Illegal trapping activity for spring 2011 has worsened in all three jurisdiction areas. The following can be deduced from the findings:

- Increases in trapping levels of 50%, 5% and 26% for RoC, SBA and Joint areas respectively during Spring 2011 compared to Spring 2010;
- Trapping in SBA is consistently higher than RoC areas (per square surveyed) but the percentage difference between them has decreased from 154% in spring 2010 to 77% in spring 2011, suggesting that this pattern may be changing.

Estimation of numbers of birds caught during spring 2011

BirdLife Cyprus' monitoring protocol describes in detail the methodology and assumptions for estimating the number of birds caught on mist nets and limesticks. The following key assumptions are applied for the estimation of the birds killed:

- 12 metres is the mean assumed length for each net⁵.
- 20 birds are caught per day per 12-m net⁵.
- 60 days is the assumed trapping period for spring and 60 for autumn
- a scaling factor of 50% is applied for the spring season, taking into consideration the fact that there are fewer birds around during spring (compared to autumn) and thus fewer birds are likely to be caught
- 301 are the possible bird trapping squares within the survey area
- 75% of illegal trapping activity for all of Cyprus is assumed to take 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.

The 41 squares surveyed during the spring 2011 represent 14% of the total of 301 1 km² 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 (1,475 m) on the basis of the proportion of the total suitable trapping area sampled, suggests that almost 11 km (10,829 metres) of net rides were active within the survey area during the spring season.

These 11 km of active net rides set in the survey area could hold 902 of 12-metre nets, each capable of catching an average of 20 birds per day⁵. The following assumptions are considered:

⁵ See Magnin's 1986 report to the ICBP

- Trapping season to be 60 days long but for spring a 50% factor for consideration of the lower number of birds migrating is applied.
- The prepared (P) rides (64% of the total net rides recorded) were active only every other day and active net rides (ANN, ASN and AUN - see Table 1 for the codes) were set up every day.

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

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

= ((940/2) + (175+150+210)) x (301/41) / (12) x 20 x 60 x 50%

= 368,909 birds caught within the survey area.

It is also assumed that 75% of total trapping activity for Cyprus takes place within the survey area, therefore over 491,000 birds could be caught across Cyprus during spring 2011. It is highlighted that the catch from limesticks (and the other findings from CABS & FoE Cyprus campaign regarding mist nets) is *not* included in this estimate.

The picture emerging of the trapping situation for 2011 from the spring monitoring programme is very disheartening, with the death toll reaching the highest level since 2008.

Top down approach for estimation of numbers of birds caught / consumed

The BirdLife Cyprus protocol describes the methodology and assumptions considered for estimating the birds caught for each survey period. The protocol applies a bottom up approach since the data recorded during the survey are taken into consideration for the bird death toll calculation (i.e. it is an estimate of the number of birds caught based on the field data recorded). For the year 2010 BirdLife Cyprus undertook surveys during spring, autumn and winter seasons

and estimated that over 2.4 million birds were killed from trapping activity. On a number of occasions BirdLife Cyprus methodology and the estimated bird death toll have been criticized as overestimating the kill. For that reason, BirdLife Cyprus has now used the independent opinion polls undertaken by RAI consultants for BirdLife Cyprus during 2005 and 2008 to generate a 'top down' bird death toll (i.e. it is an estimate based on data relating to the numbers of birds consumed).

The RAI opinion polls of years 2005 and 2008 concluded, based on the answers of a random sample of 550 people, that 2% and 3%, respectively, of the population (over 18 years old) eat *ambelopoulia* regularly. The population figures for Cyprus (for 2007) are as follows:

Population (including Turkish Cypriots) = 1,054,000

Population– under Republic of Cyprus control = 789,300⁶

Population structure, age 0-14 years old = 17.5%⁷

Population structure, age 15-64 years old = 70.1%

Population structure, age 64 onwards years old = 12.5%

The demographic age groups 15-64 and 64 onwards correspond to 82.6% of the population of the Republic of Cyprus for year 2007. Since the RAI opinion poll was undertaken for the age group over 18 years old (instead of over 15 year old), it is assumed that the age group > 18 years covers 80% of Cyprus population (under RoC control, 789,300 people). It is estimated that 12,629⁸ (2%) and 18,943⁸ (3%) people for years 2005 and 2008 respectively would eat *ambelopoulia* regularly.

⁶

<http://www.pio.gov.cy/mof/cystat/statistics.nsf/All/3226D1B1D8E6D047C22574D7002D73A9?OpenDocument&sub=1&e=>

⁷

<http://el.wikipedia.org/wiki/%CE%94%CE%B7%CE%BC%CE%BF%CE%B3%CF%81%CE%B1%CF%86%CE%AF%CE%B1%CF%84%CE%B7%CF%82%CE%9A%CF%8D%CF%80%CF%81%CE%BF%CF%85>

⁸ Rounded up to the nearest integer

Furthermore, assuming that by *regularly* one person would mean 4 times per year and that per seating one person would consume a dozen small birds the following can be estimated:

$$\begin{aligned} \text{Birds consumed in 2005} &= 12,629 * 4 \text{ (times per year)} * 12 \text{ (no of} \\ &\quad \text{birds eaten per seating)} \\ &= 606,182 \text{ } \textit{ambelopoulia} \text{ eaten} \end{aligned}$$

The following table presents the bird death tolls estimated from the top down approach (RAI opinion polls) and the bottom up approach (BirdLife Cyprus trapping reports) for years 2005 and 2008.

Table 2 Estimated bird death tolls for years 2005 and 2008

	2005	2008
Top down approach (RAI polls) – birds eaten	606,182	909,274
Bottom up approach (BC reports) – birds caught	340,290 ¹	1,100,000 ²

Note 1: Figure taken from Spring and Autumn 2005 BirdLife Cyprus reports

Note 2: Figure taken from winter 2008/2009 BirdLife Cyprus report where estimate for the whole year is presented

Table 2 shows clearly that the figures arrived at via the top-down approach agree very well with those arrived at by the ‘bottom-up’ approach, in fact the bottom up approach may represent an underestimate in fact, given that a number of birds caught, are a (disastrous) ‘by-catch’ of inedible species which are included in the calculation of the bottom up approach but not the top down approach. That means that under normal circumstances the bottom up approach should come up with higher estimates than the top down. The key point is that the order of magnitude for the estimated numbers of birds killed/eaten is the same using both methodologies.

Regarding the year 2005, trapping activity was relatively low, as shown from the BirdLife Cyprus surveillance programme. The opinion-poll-based (‘top-down’) estimate for numbers of birds eaten is also relatively low for 2005, though,

notably, much higher than the 'bottom-up' estimate. For 2008, levels of trapping activity detected in the field were much higher, as was the 'top-down' estimate (see Table 2).

The 'top-down' estimate provides additional validity and credibility to the BirdLife Cyprus methodology and protocol regarding the estimate of number of birds killed. Although both approaches can only provide estimates of birds trapped and consumed, they are both of the same order, which is hundreds of thousands of birds killed.

On a separate note and in addition to the RAI opinion polls of 2005 and 2008, BirdLife Cyprus conducted an anonymous opinion poll (questionnaire) regarding trapping at its stall at the Cyprus International Fair 2011, between 6-15 May. The poll aimed to get an overview of the public's trapping perceptions such as: a) their personal opinion on trapping, b) the non selective nature of trapping, and c) the public's knowledge on whether offering *ambelopoulia* in restaurants or consumption of *ambelopoulia* is legal or not. The conclusions drawn from the 71 completed questionnaires were:

- The majority of people (90%) believe that bird trapping with limesticks and nets is wrong and (86%) are aware that it is illegal to offer *ambelopoulia* in restaurants.
- However, almost 45% of the people answered that they have eaten *ambelopoulia* either in restaurants or at friend's houses.
- Only 70% knew that trapping with limesticks and nets is a non selective method.

Despite the small sample size it was interesting to observe that the majority of people knew that trapping is illegal and considered it wrong, but then on the other hand almost half of them had eaten *ambelopoulia*. Furthermore around 30% of the people asked did not know that the methods used for trapping birds are non

selective. It is clear that greater efforts for awareness campaigns regarding this issue are needed, focusing on the ecological impacts associated with trapping.

It was really surprising that although the sample of people who completed the questionnaire in the fair was very small and was not completely random (i.e. they voluntarily approached BirdLife Cyprus' stand for more information regarding the organisation), it nevertheless suggests that a staggering 45% of the people asked had tried ambelopoulia, appearing to be in line with the massive increase in bird trapping recorded in the field since 2008.

Cooperation with the competent authorities during Spring 2011

As mentioned earlier, the BirdLife Cyprus team never acts in any way that could be considered activist and always informs the competent authorities when evidence of trapping is found, particularly if a site is found to be active (but no nets found on site) or if there are nets on site (set or furred). The team contacted and reported to the competent authorities in total 9 locations within 7 squares where nets (set and furred) were found: 5 squares under RoC control and 2 squares under SBA control.

While the commitment of the officers our field team meets in the field is not in doubt, resources are clearly stretched to the limit. BirdLife Cyprus believes that both competent authorities could better prioritize their time in order to respond to reporting of trapping activity as efficiently and effectively as possible, with the aim of securing arrests and making early confiscations.

4. Conclusions

The data collected of the trapping levels for the Spring 2011 season are very discouraging, indicating that unless enforcement actions are stepped up to seriously clamp down illegal trapping activity during the main autumn season, 2011 will more than likely be another record year in bird death tolls.

In total 41 squares were surveyed by the BirdLife Cyprus team, and almost 1.5 km (1,475 metres) of active net rides were found, as well as 18 mist nets (set or furred) with around 80 birds trapped in them (3 alive, the remaining dead), one bird sound device playing and a number of car batteries. There has been a steady upward trend in spring bird trapping activity over the past three years, even if levels remain lower than those in 2007 or 2008. Of particular concern is the sharp rise in the number of nets found *in situ* by our field team over the past three survey seasons, as this suggests trappers are becoming less fearful of enforcement. The estimated bird death toll for this spring is shocking, at over 368,900 birds within the survey area and over 491,000 birds across Cyprus.

A new, 'top down' estimate of numbers of birds eaten in restaurants, derived from opinion poll data on levels of *ambelopoulia* consumption lends weight to the 'bottom up' estimate of bird death toll derived from BirdLife Cyprus' field data on trapping levels. Both estimates suggest hundreds of thousands of birds are killed and eaten every year in Cyprus. Results from a 2011 opinion poll (albeit a small one) suggest strongly that *ambelopoulia* consumption has risen dramatically since 2008.

Areas jointly overseen by the SBA Police and Game Fund were once again identified as problem trapping areas. Netting levels were once again higher in the SBA areas than in the Republic, but there was also evidence in spring 2011 to suggest this may be changing, as the increase in trapping (compared to spring 2010) was much higher for the Game Fund controlled areas than for the areas

under SBA Police control. The response time from the competent authorities was not as anticipated in the spring of 2011, particularly from the Game Fund, suggesting relevant resources are stretched to breaking point.

Overall, it is evident that spring trapping activity has been increasing in the last few years and illegal trappers are apparently becoming less fearful of prosecution. With recent winter season, and especially autumn season trends similarly alarming, the Cyprus trapping situation remains disastrous.

The BirdLife Cyprus winter trapping report of 2010/11 concluded⁴ that during the year 2010, an ecological disaster took place in Cyprus regarding birds, while at the same time the “International year of Biodiversity” was celebrated and global efforts were stepped up to halt biodiversity loss. BirdLife Cyprus can only hope to be proven wrong, but the 2011 spring findings strongly suggest that the current year will be another “record” year for bird trapping, following the increasing trend observed in the last 3 years.

BirdLife Cyprus can only repeat once again the detrimental ecological impacts that bird trapping has. Evidence from well documented reports⁵ 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 be the beneficiaries of special conservation measures for their survival and protection. Further evidence of the non-selective nature of trapping was found in the field in the spring of 2011.

These worrying results come ahead of the forthcoming “European Conference on illegal killing of birds” under the auspices of the Bern Convention that will take place between the 6-8 July 2011 in Cyprus, when Cyprus will be the focus regarding this issue. BirdLife Cyprus believes that this conference is the perfect springboard opportunity for all the competent authorities (both for the Republic of

Cyprus and the SBA Administration) to use it as new start for tackling bird trapping through a serious strategy and action plan, setting the EU Presidency of Cyprus that will start in July 2012 as a milestone. We hope that the politicians who will attend the Conference will grab the opportunity for tackling the problem and will take effective action, through targeted reinforcement of the enforcement bodies, economic support for an information campaign and messages of zero tolerance towards the press. Otherwise the 2011 spring findings appear to strongly suggest that the coming autumn will be another “record” year for bird trapping

Just as true political will and determination is vital for tackling the trapping activity (we need more enforcers in the field and decisive and determined action against offending restaurants) and encouraging the imposition of deterrent court fines, it is also becoming apparent that a big awareness raising campaign, targeting the generally ‘indifferent’ public is necessary in order to bring about a change in public opinion. BirdLife Cyprus will be stepping up its “enlightenment” efforts this year against bird trapping, hoping that raising the awareness levels will reverse the damaging trend of the increasing trapping activity.

Appendix 1 - Spring 2011 field data

Evidence of illegal bird trapping activity found within survey squares for spring 2011 period

Date	Survey square	Start time	Survey duration (mins)	Metres active net ride	Net code	No. nets	Fenced?	Habitat	Tape lures	Limesticks (No.)	Birds caught
16/3/2011	1	10:30	45	40	P	-	Yes	O	-	-	
16/3/2011	2	11:30	105	200	P	-	Yes	C	B, Y	-	
				60	P	-	Yes	O	-	-	
29/3/2011	3	12:30	45	-	-	-	No	O, A, P	-	-	
				-	-	-	No	O, K, L, S	-	5 (old)	
5/4/2011	4	11:40	120	30	P	-	Yes	O	-	-	
	5	14:30	75	50	P	-	No	O, C, S, P	-	-	
7/4/2011	6	10:40	110	40	P	-	Yes	O	-	-	
	7	12:45	85	30	P	-	No	O, K	W	-	
				15	P	-	No	A	-	-	
8/4/2011	8	9:55	55	-	-	-	No	O	-	-	
	9	10:55	60	-	-	-	Yes	O	-	-	
	10	12:00	55	20	P	-	Yes	O, S, P, F	-	-	
11/4/2011	11	10:05	40	-	-	-	-	-	-	-	
	12	11:10	40	-	-	-	-	-	-	-	
	13	12:00	55	-	-	-	-	-	-	-	
12/4/2011	14	9:30	15	-	-	-	-	-	-	-	
	15	10:00	65	-	-	-	-	-	-	-	
	16	11:25	70	-	-	-	-	-	-	-	
13/4/2011	17	9:35	95	20	ASN	1	No	O, A	B	-	1
				100	ANN	-	No	O, A	B	-	
	18	11:20	110	20	P	-	-	O, C, S, F	-	-	

				30	ASN	1	No	O	P	-	2
				20	ASN	1	No	O, A	-	-	
				75	ANN	-	No	O, A	-	-	
14/4/2011	19	10:10	80	10	AUN	1	Yes	O, A, P	-	-	
				120	P	-	Yes	A, O	-	-	
	20	11:45	45	-	-	-	-	-	-	-	
	21	12:45	65	-	-	-	-	-	-	-	
15/4/2011	22	9:45	10	-	-	-	-	-	-	-	
	23	10:10	60	-	-	-	-	-	-	-	
	24	11:20	115	40	AUN	2	Yes	O, S	-	-	
				50	P	-	Yes	O	-	-	
				20	AUN	1	No	A	-	-	8 birds caught (blackcaps, sparrows)
				40	P	-	No	A	-	-	
18/4/2011	25	9:35	50	-	-	-	-	-	-	-	
	26	10:50	50	-	-	-	-	-	-	-	
	27	11:55	10	-	-	-	-	-	-	-	
	28	12:45	30	-	-	-	-	-	-	-	
19/4/2011	29	10:30	95	15	P	-	No	A, O	-	-	
	30	12:45	25	-	-	-	-	-	-	-	
20/4/2011	31	10:05	65	80	ASN	4	Yes	A	-	-	13 birds (1 great spotted cuckoo, 1 common cuckoo, blackcaps) in total for this location
				60	AUN	3	Yes	A	-	-	
	32	11:45	65	-	-	-	-	-	-	-	

	33	13:00	15	-	-	-	-	-	-	-	
21/4/2011	34	9:50	40	-	-	-	-	-	-	-	
	35	11:00	35	15	P	-	No	A, O	-	-	
	36	12:05	90	95	P	-	No	A	-	-	
27/4/2011	37	9:45	60	-	-	-	-	-	-	-	
	38	11:05	40	-	-	-	-	-	-	-	
28/4/2011	39	9:35	30	-	-	-	-	-	-	-	
	40	10:20	45	-	-	-	-	-	-	-	
	41	11:30	80	40	P	-	No	A, O	-	-	
				60	P	-	No	A	-	-	
				80	AUN	4	No	A	B, W	-	60 birds caught (incl hoopoe)

Appendix 2

Evidence of illegal bird trapping activity found beyond survey squares for spring 2011 period

Date	Survey square	Start time	Survey duration (mins)	Metres active net ride	Net code	No. nets	Fenced?	Habitat	Tape lures	Limesticks no
13/4/2011	1	9:35	95	20	P	-	Yes	O, C	-	-
	2	11:20	115	60	P	-	No	A	-	-