



LIFE11INF/IT/253
LIFE + Information and Communication
“A Safe Haven for Wild Birds”

Action E.2: Evaluation of the “Safe havens for wild birds” campaign: Monitoring of the project impact on the main target audience and on the environmental problem targeted in Greece

Baseline Evaluation Report



Covering the project activities from 01/12/2012 to 09/04/2013

Reporting Date
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INTRODUCTION

This action aims at monitoring, measuring and evaluating the “Safe havens for wild birds” campaign, in Greece and more specifically in the Ionian Islands, based on detecting possible attitude changes that will be occurred in the targeted groups concerning illegal killing of migratory birds.

The first phase of the evaluation took place during the period 01-12-2013 to 6-04-2013 via a public opinion survey. The results will be used so as to establish a baseline data set regarding the attitude towards illegal killing in the target audience as well as the perceptions and knowledge of migratory avifauna species and the migration pattern, just before the beginning of the current LIFE project. More specifically we assumed that the gained knowledge will be used so as to detect possible.

- ✓ change of attitude and increase in knowledge about migratory birds and illegal killing during spring migration in hunters associations, visitors, landowners and local environmentally friendly business
- ✓ change of attitude and increase in knowledge about migratory birds and illegal killing during spring migration amongst the younger generation
- ✓ change of attitude and increase in knowledge about migratory birds and illegal killing during spring migration amongst law enforcement authorities

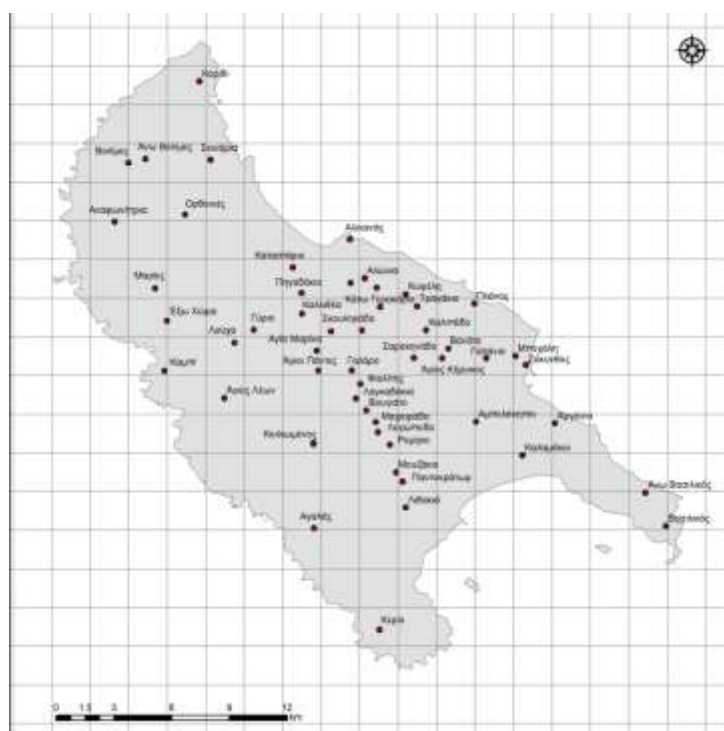
As changes in attitude are difficult to measure the surveys will also record any initiatives taken by the targeted groups towards the protection of migratory birds or towards stopping illegal killings. Moreover, the surveys will look for individuals with a more active attitude towards the environmental problem targeted and will enhance the level of teachers and schoolchildren involvement, awareness and participation in the respective public awareness campaign. Finally, changes in the frequency of wardening and controls during spring by the law enforcement authorities will be monitored.

METHODOLOGY

Data were collected through a questionnaire-based survey which was conducted in collaboration with a number of public and private services in Zakynthos and Corfu Prefectures from December 2012 to April 2013. The questionnaire (4 types according to each group of interest) (was distributed to 4 main target groups:

- ✓ Schoolchildren,
- ✓ Hunters belonging to local hunting associations,
- ✓ Local community except hunting society, and
- ✓ Competent national and local authorities

Each type of questionnaire was consisted of closed and open-ended questions. The obtained data were analysed also in a time-spatial scale. For example, the collected hunting and illegal killing data included, hunting characteristics e.g. number of used bullets per year, main hunting areas, hunting months and average hunting days per month. The data related to illegal killing activity included a list of the birds which constitute the main target species of killing, population trends of main target species, evaluation of possible threats for migratory birds etc.



the threat's magnitude.

Figure 1. Map of Zakynthos Island used on the questionnaire based survey

Hunting activities were illustrated on maps using 2x2 km grid in order to identify the main areas suffering from illegal killing (Fig. 1). It has to be mentioned that hunters could not provide direct information on the total number of birds killed per season. On the other hand the level of hunting pressure in combination with the population trends of target species like Turtle doves could give a rough picture of

The acquired data from questionnaires were stored in an Access data-base and were further spatially examined in Arc GIS 9.3 software. The expected produced distribution maps will represent the core areas used by illegal poachers in the Ionian Islands.

RESULTS

A. General information

A total number of 235 individuals corresponded to our research, under a questionnaire orientated methodological approach during December 2012-April 2013. The majority of them were schoolchildren (118inds, 50.21%) followed by local community (52inds, 22.13%), hunters (38inds, 16.17%) and authorities (27inds, 11.49%) (Figure 2).

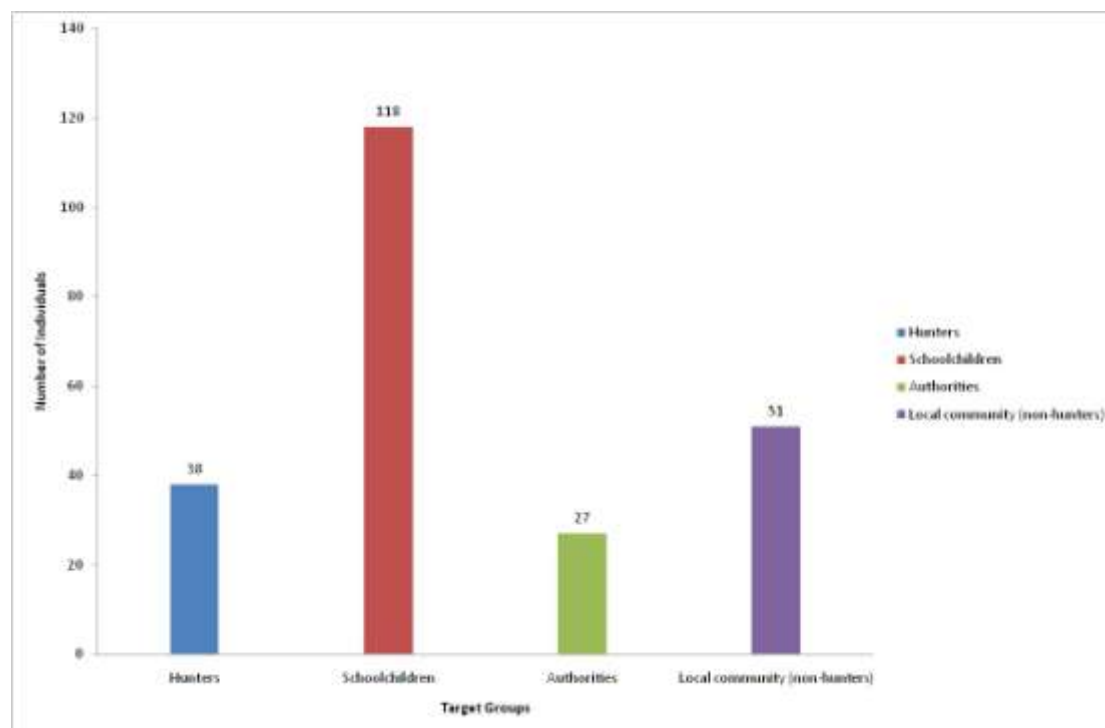


Figure 2. Corresponded individuals per target group to our study

It is expected that the final total number of the individuals that will respond to our survey will be increased up to 600 till the end of April 2013, since there was a delay from the public and private authorities to give the necessary permissions and allow the dissemination of the specific questionnaires to the target audience (e.g. schoolchildren inside classrooms, hunters belonged to local hunting federations etc.). The responded individuals will represent the sum of the local Ionian communities and will enhance the reliability of our research effort.

B. Schoolchildren

The group of schoolchildren which was responded to our survey was represented by both sexes in an equal basis (Fig. 3). The students who filled questionnaires belonged to Secondary level of Education with the majority of them aged between 12-14 years old (Fig. 4).

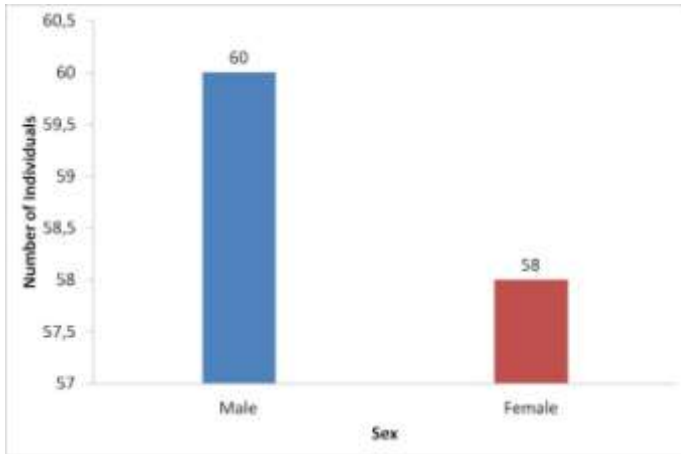


Figure 3. Sex ratio of schoolchildren participated to the current work

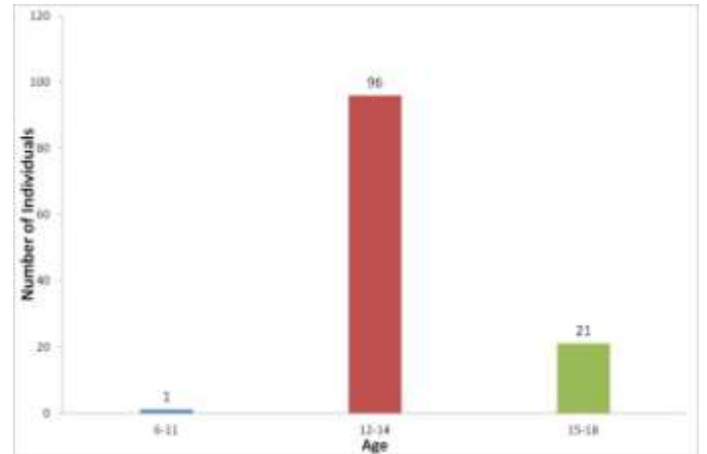


Figure 4. Age classification of schoolchildren participated to survey

About half of the schoolchildren had a previous experience of Environmental Education (Fig. 5) whereas almost all of them declared the willingness to participate in future activities within the framework of Formal Environmental Education (Fig. 6).

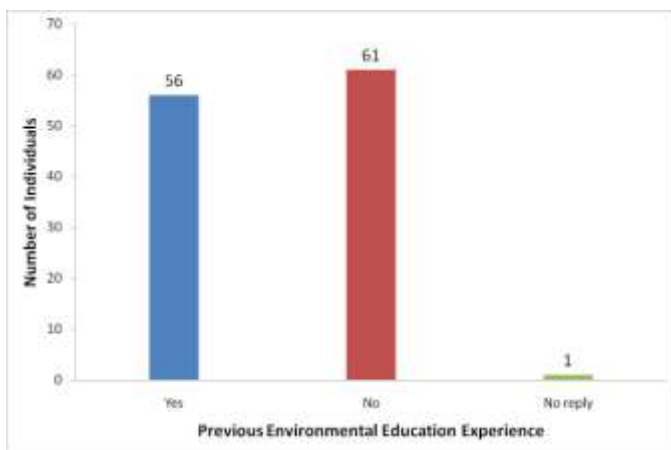


Figure 5. Past Environmental Education experience of schoolchildren participated to the questionnaire based survey

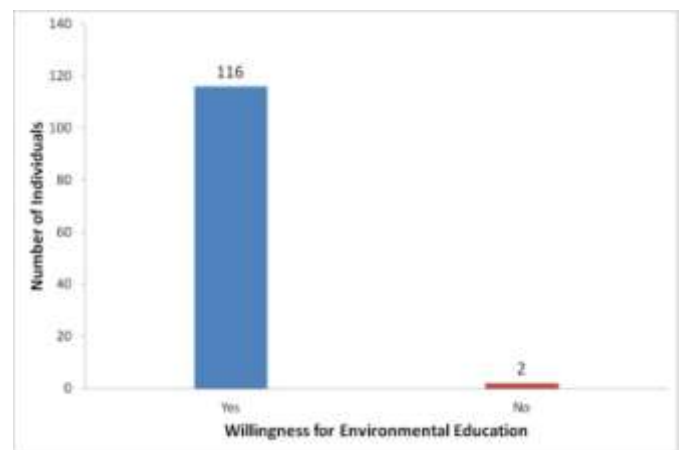


Figure 6. Declaration of schoolchildren willingness to participate to future Environmental Education projects

The importance of the Ionian Islands in spring migration for the Eastern Mediterranean is not known to 45% of the schoolchildren (Fig. 7) even if the majority of them are familiar with a significant hunting pressure on bird populations in a local scale (Fig.8).

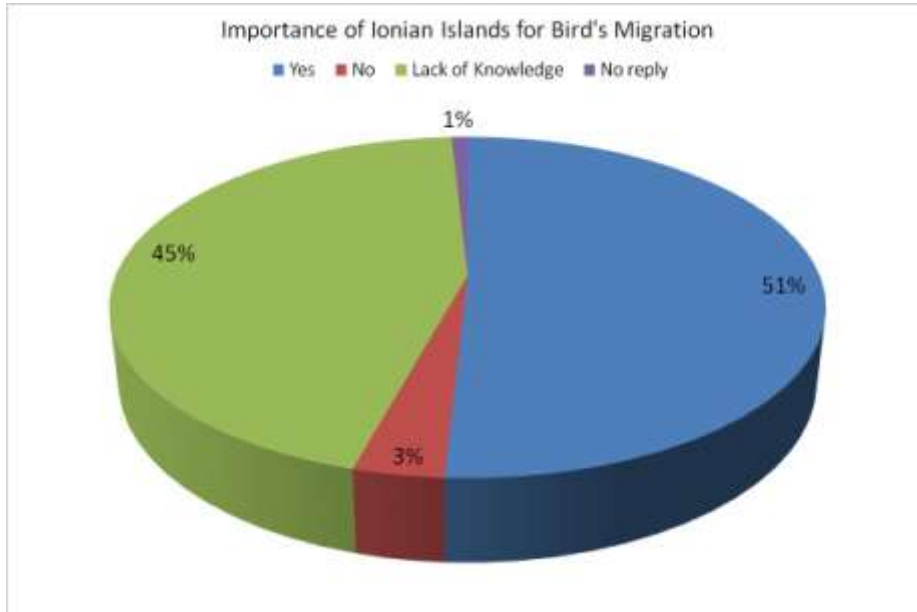


Figure 7. The level of knowledge in schoolchildren community regarding the importance of the Ionian Islands for birds' migration

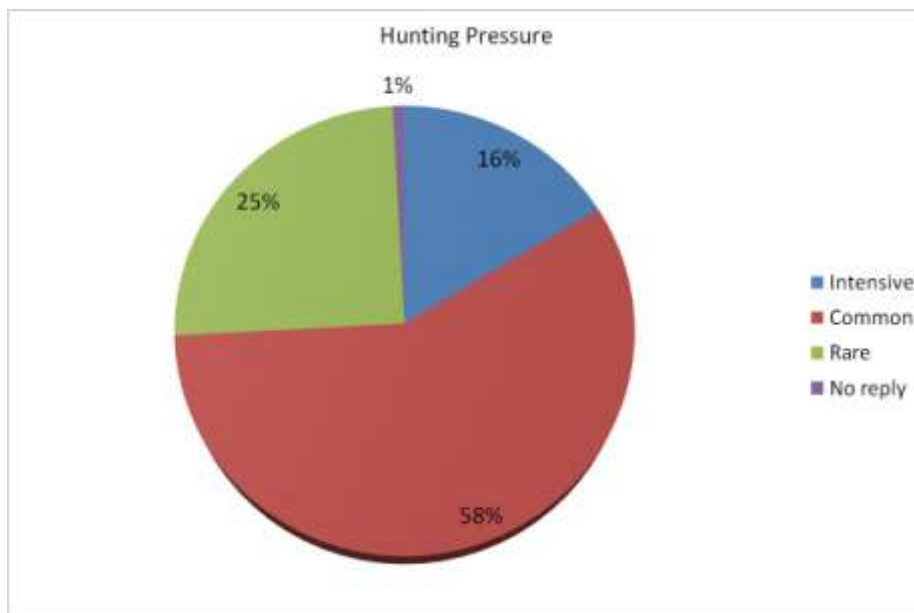


Figure 8. Evaluation of hunting pressure on birds in the Ionian Islands through the eyes of schoolchildren

It is worthwhile to mention that according to our results 36% of the interviewed schoolchildren had participated in illegal killing activities in the past as it is shown in Figure 9 and that, a significant level (17%) of poaching takes place during spring migration in the Ionian Islands (Fig. 10).

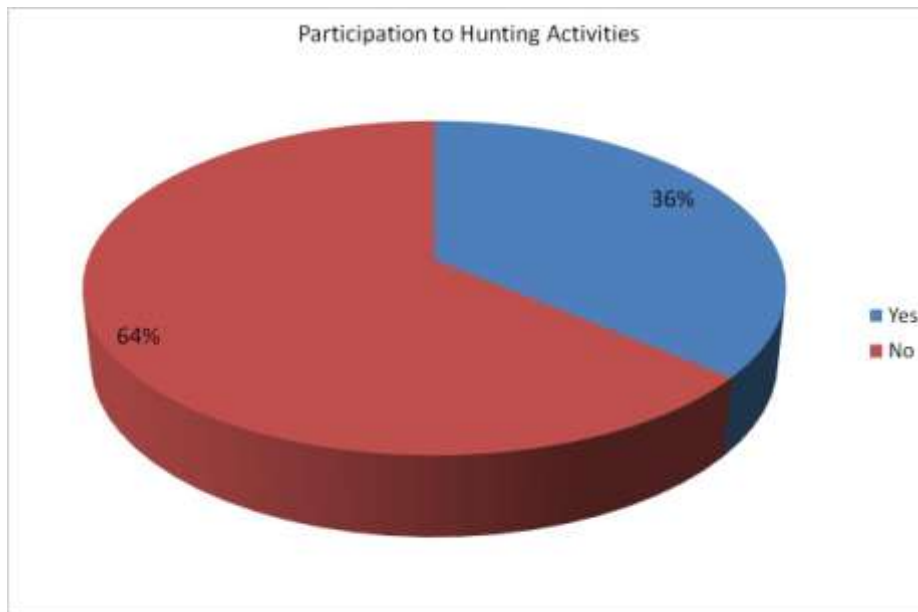


Figure 9. Participation of schoolchildren to hunting activities spread around the Ionian Islands

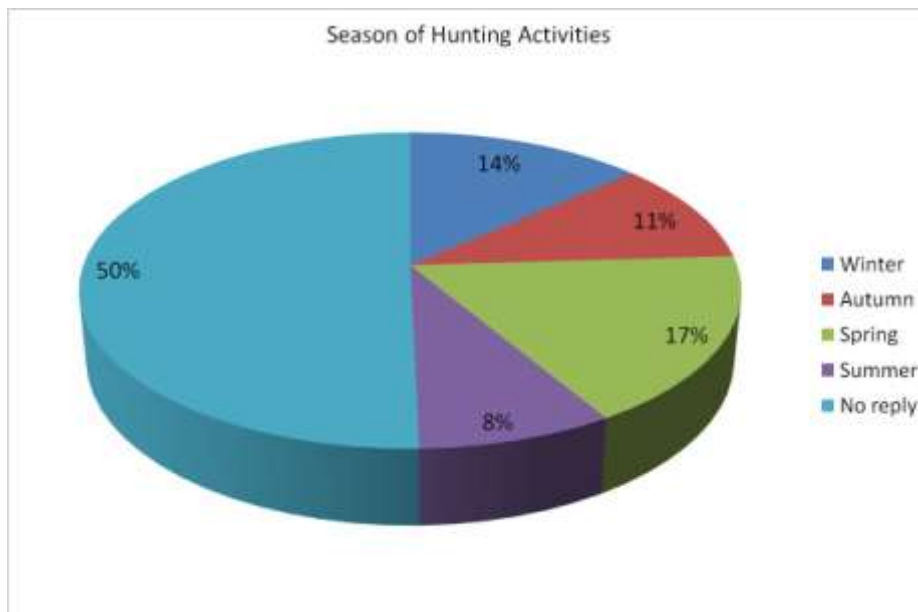


Figure 10. Seasonal pattern of hunting activities according to schoolchildren

Another aspect of schoolchildren thoughts is that the majority seems to realize that killing activity has a negative impact on the conservation status of migratory avifauna species as it is shown in Figures 11 & 12. On the other hand there is a significant minority which believes that spring killing doesn't constitute a threat for birds' migration.

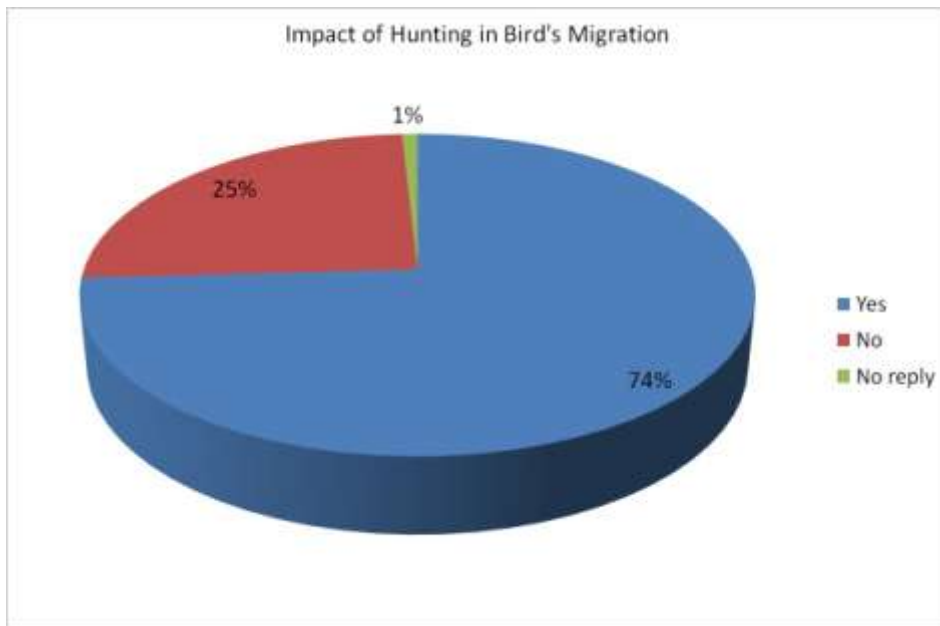


Figure 11. Impact of hunting activity on birds' migration according to schoolchildren

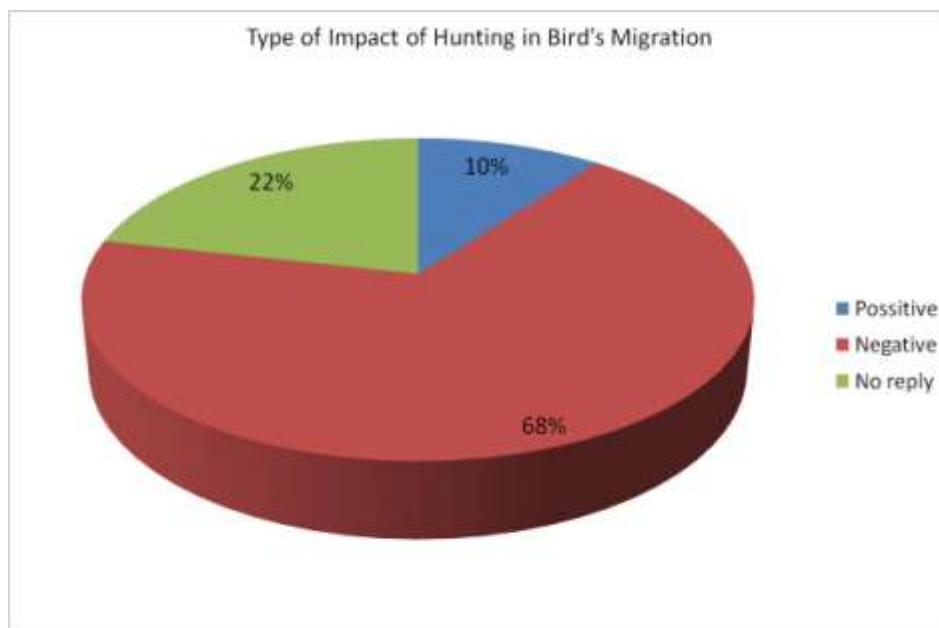


Figure 12. Impact of hunting activities on birds' migration according to schoolchildren

In pie charts 13 & 14 it is shown that most of the schoolchildren are characterized by an absence of knowledge regarding the legislation framework for hunting activities which in parallel is combined with willingness for receiving respective information.

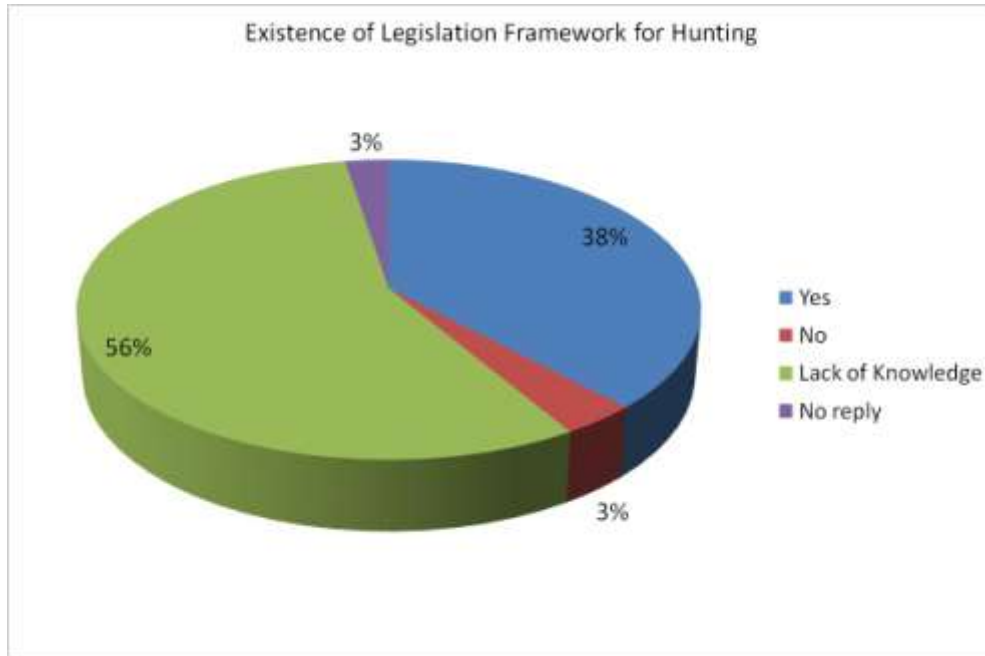


Figure 13. Level of schoolchildren knowledge for a legislation framework which is referred to hunting activity

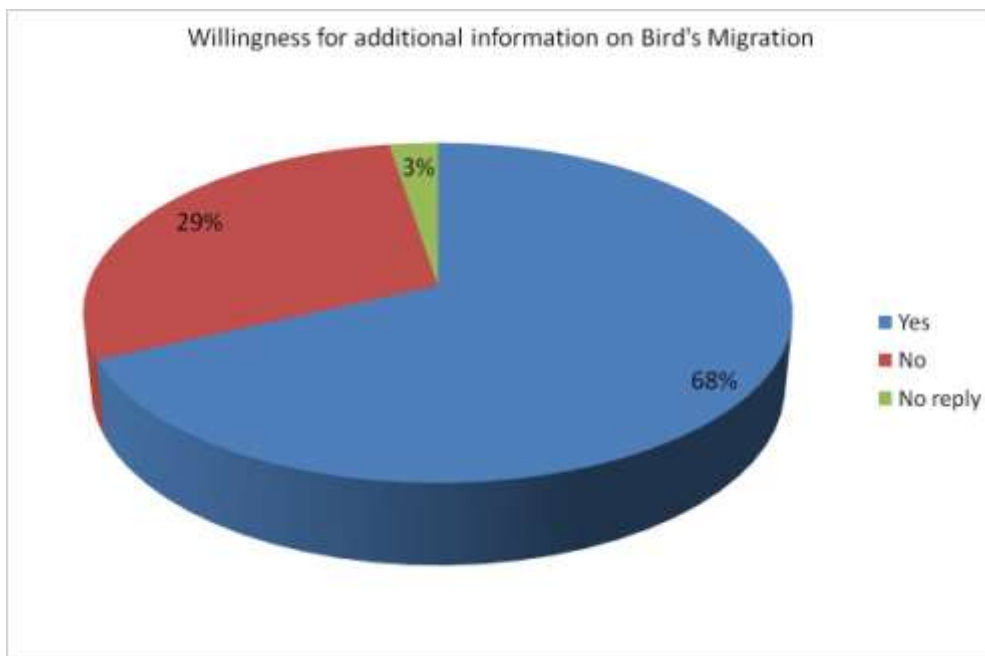


Figure 14. Schoolchildren willingness for receiving further information about the rules for a legal hunting activity

C. Hunters

A total number of 38 local hunters (mostly from Zakynthos Island) was responded to the questionnaire based survey where only one was female (Fig. 15). Additionally all the age classes of hunters were represented whereas the majority of them belonged to the class of 26-40 years old (Fig. 16).

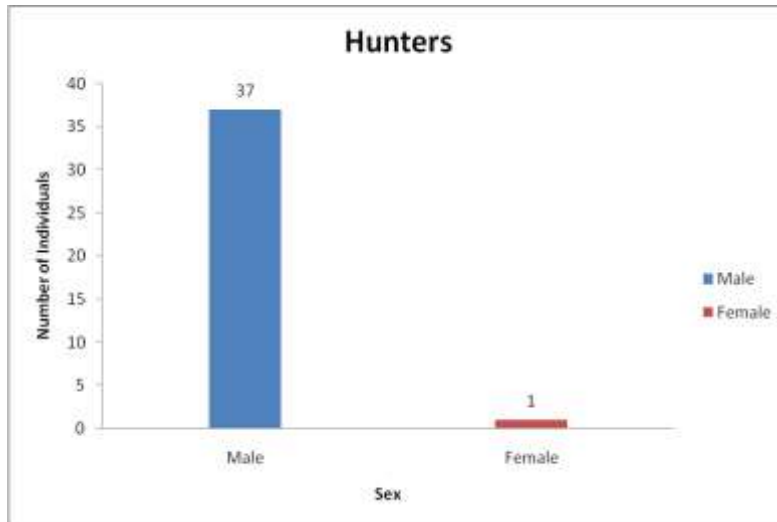


Figure 15. Sex ratio of hunters participated to the current work

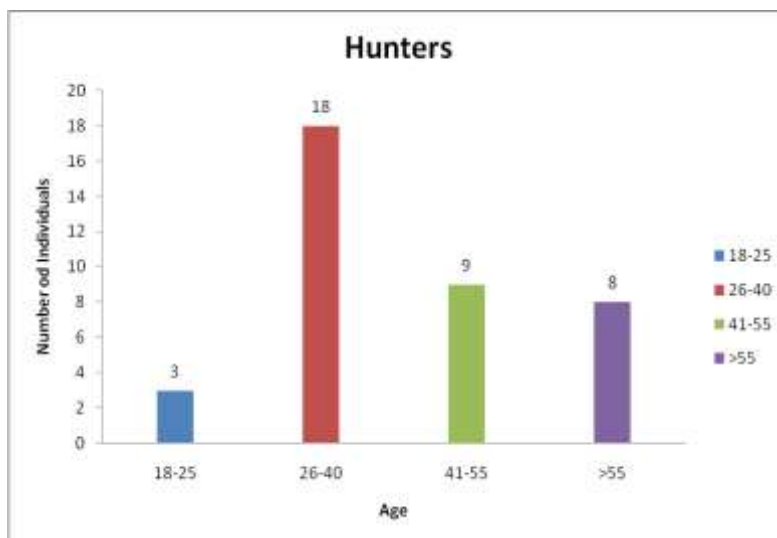


Figure 16. Age classification of hunters participated to the current work

The majority of the hunters belonged to secondary education whereas only 3 were of higher education (Fig. 17). Additionally and in an occupation level a wide distribution was observed as it is shown in Figure 18.

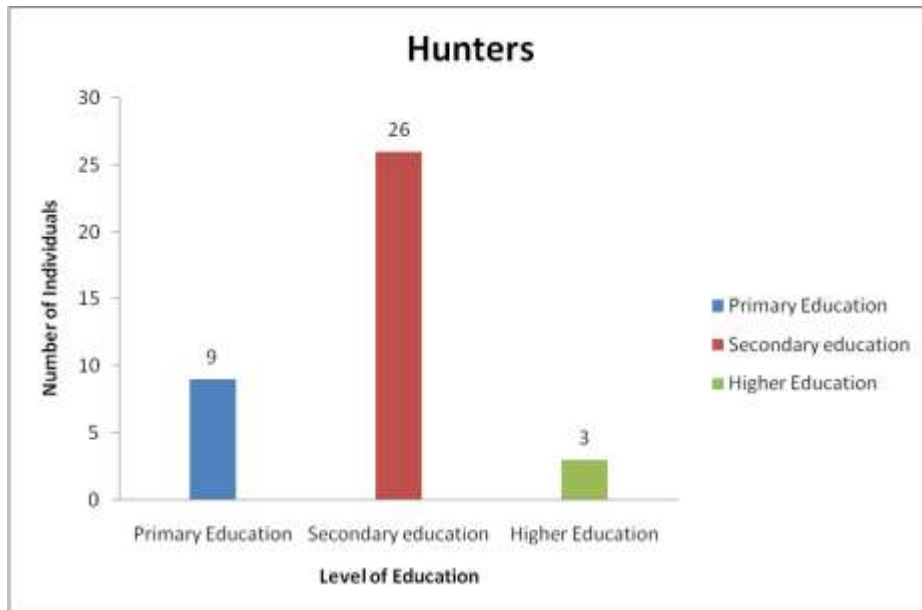


Figure 17. Education level of hunters participated to the current work

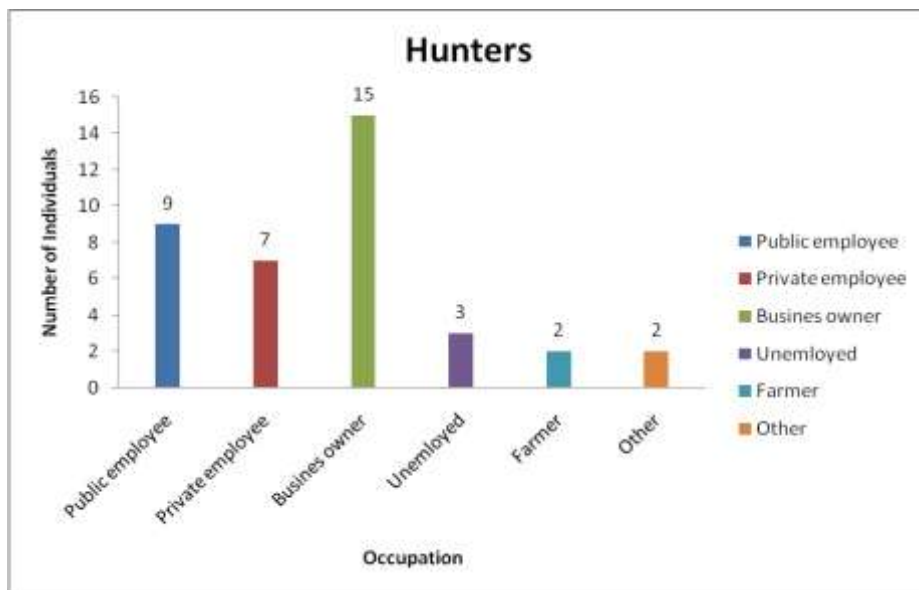


Figure 18. Hunters main occupation responded to our survey

The majority of hunters declared a long experience (more than ten years) in hunting activities (Fig.19). Hunters have also declared that family constitutes the main source of hunting motivation as it is declared in Figure 20.

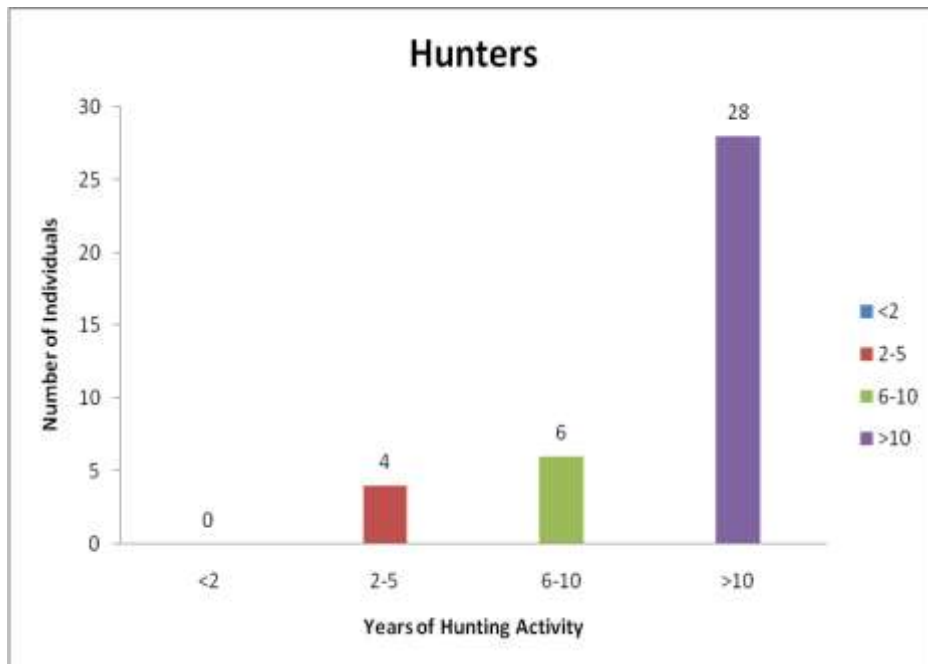


Figure 19. Sex ratio of hunters participated to the current work

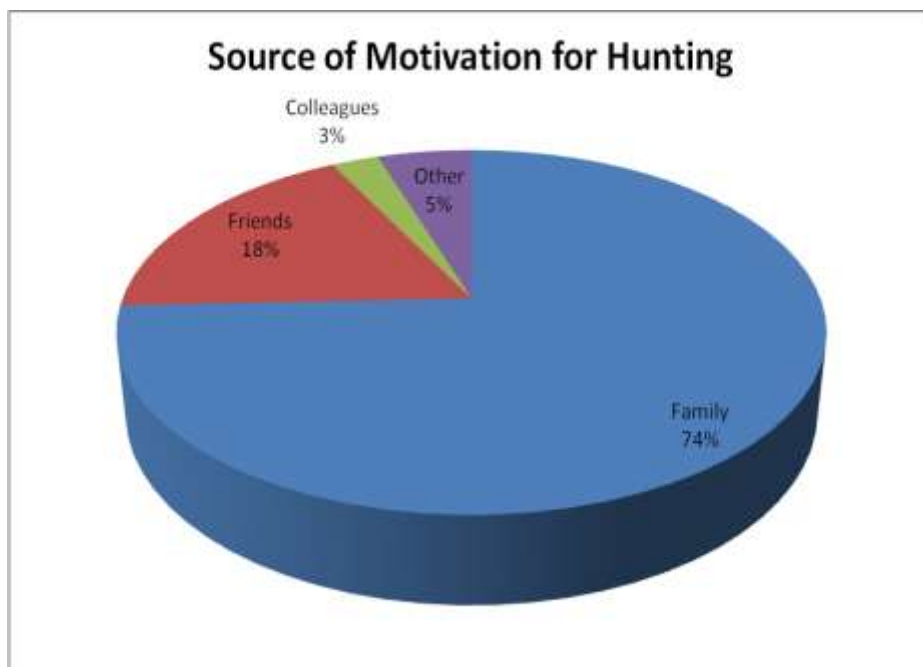


Figure 20. Origin of motivation for participation to hunting activity according to local hunters

Specific knowledge of hunters on hunting regulations according to the relevant greek legislation seems to be satisfied as it is shown in Figure 21. Hunters mainly trust hunting

federations so as to to receive specific information which concerns hunting regulations per year (Fig. 22).

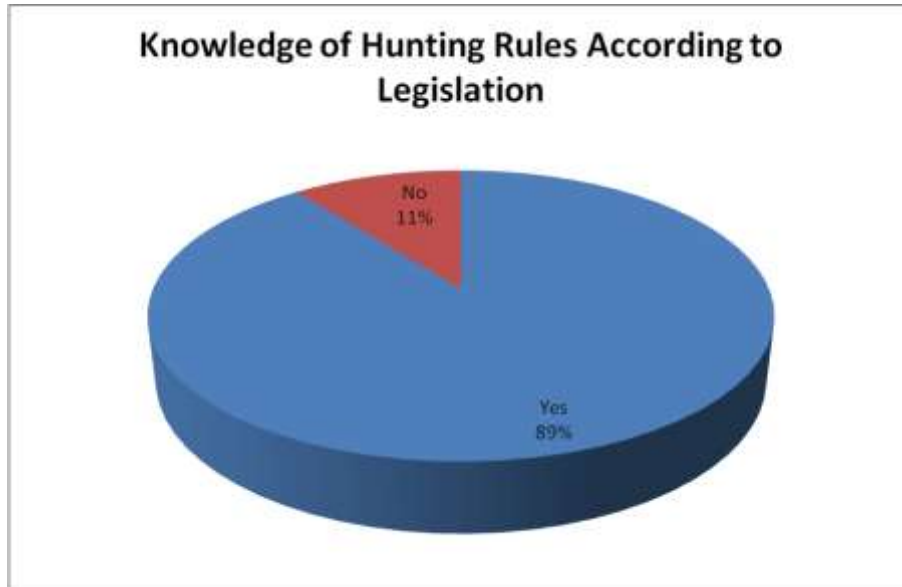


Figure 21. Hunters declaration on knowledge regarding hunting regulations in Greece

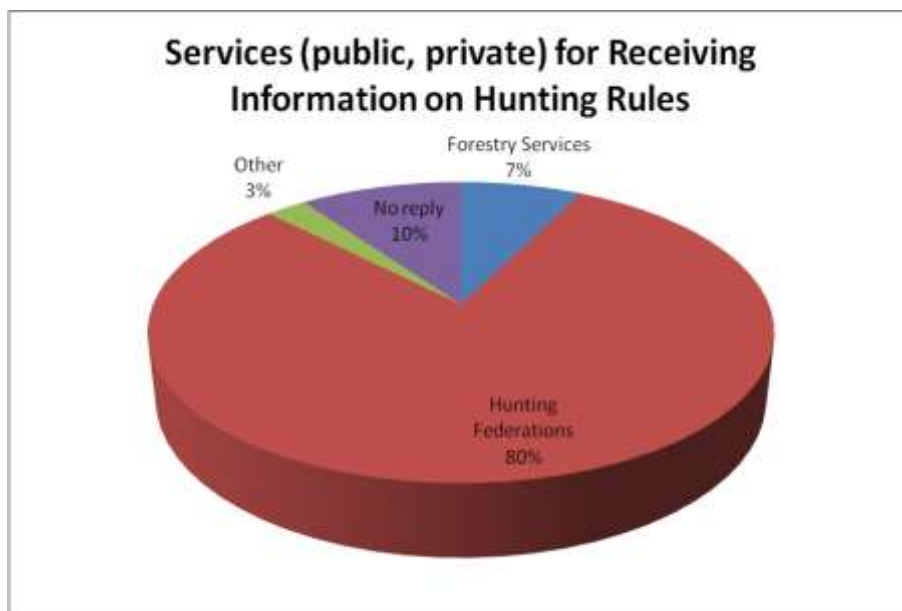


Figure 22. Services that hunters trust for receiving reliable information on hunting regulations

The 80% of the hunters believe that they have an average up to good level of knowledge for the conservation status (including population, threats etc.) of the avifauna biodiversity with emphasis on migratory birds (Fig. 23). The bodies that trust so as to receive update information for conservation issues on birds are mainly hunting federations followed by

forestry services, higher education institutes, the greek ministry of environment and the environmental NGOs (Fig. 24).

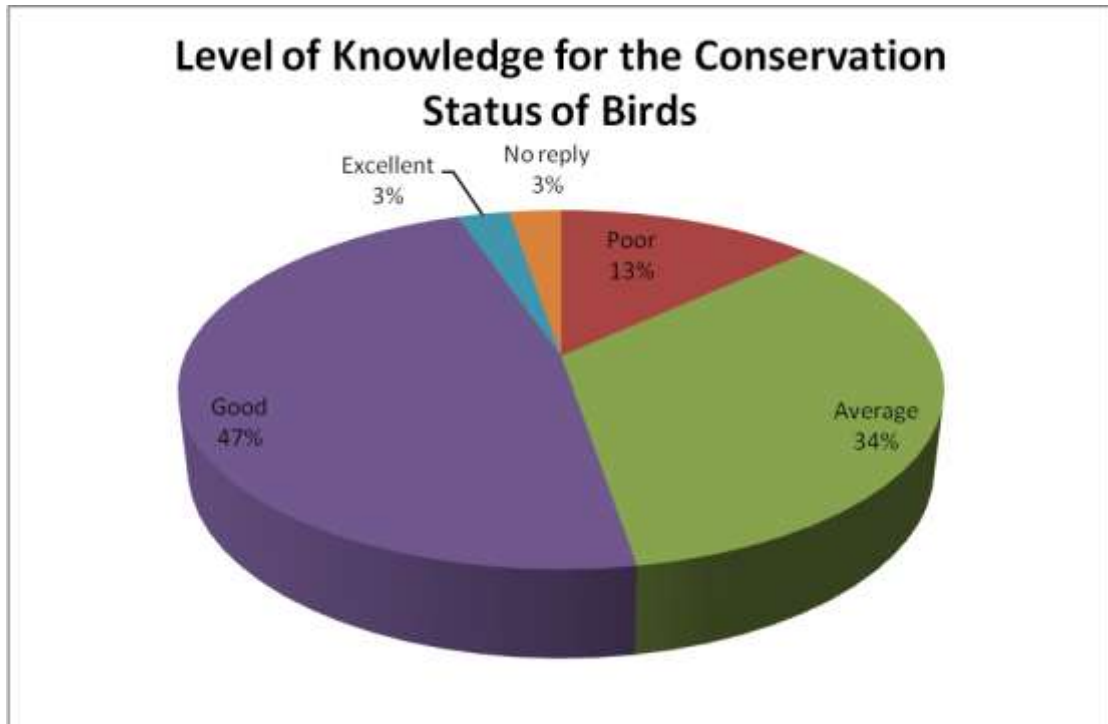


Figure 23. Level of hunters knowledge regarding the current conservation status of wild birds

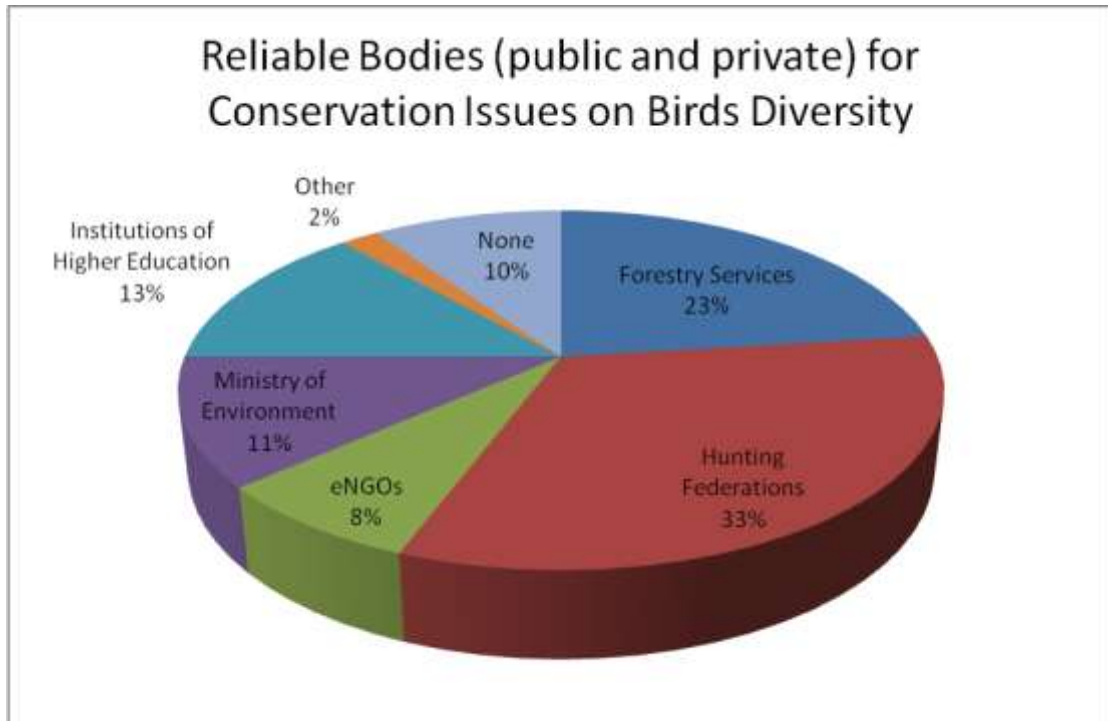


Figure 24. Services that hunters trust for receiving reliable information for the conservation status of birds

Only 5% of the hunters had a previous participation to awareness events which are referred to poaching during spring migration in the Ionian Islands (Fig. 25). It is worthwhile to mention also that the 33% of the hunters declared that their seasonal hunting activity includes also spring months, mostly April and May (Fig. 26).

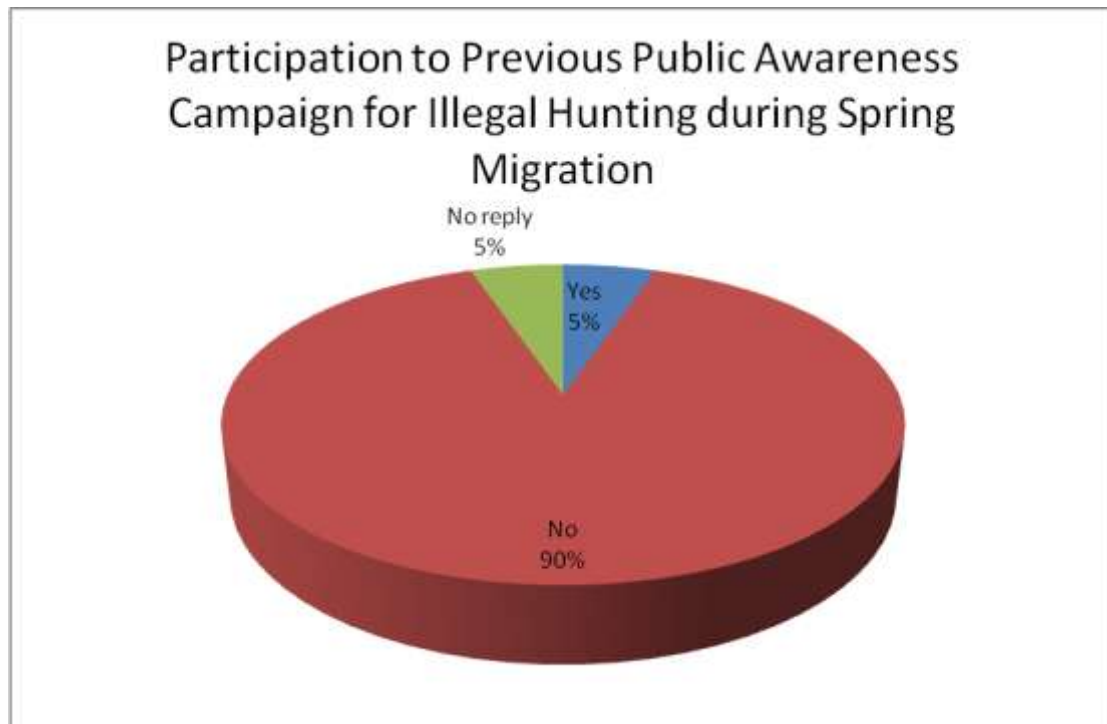


Figure 25. Participation of hunters to previous public awareness campaigns for the illegal hunting during spring migration

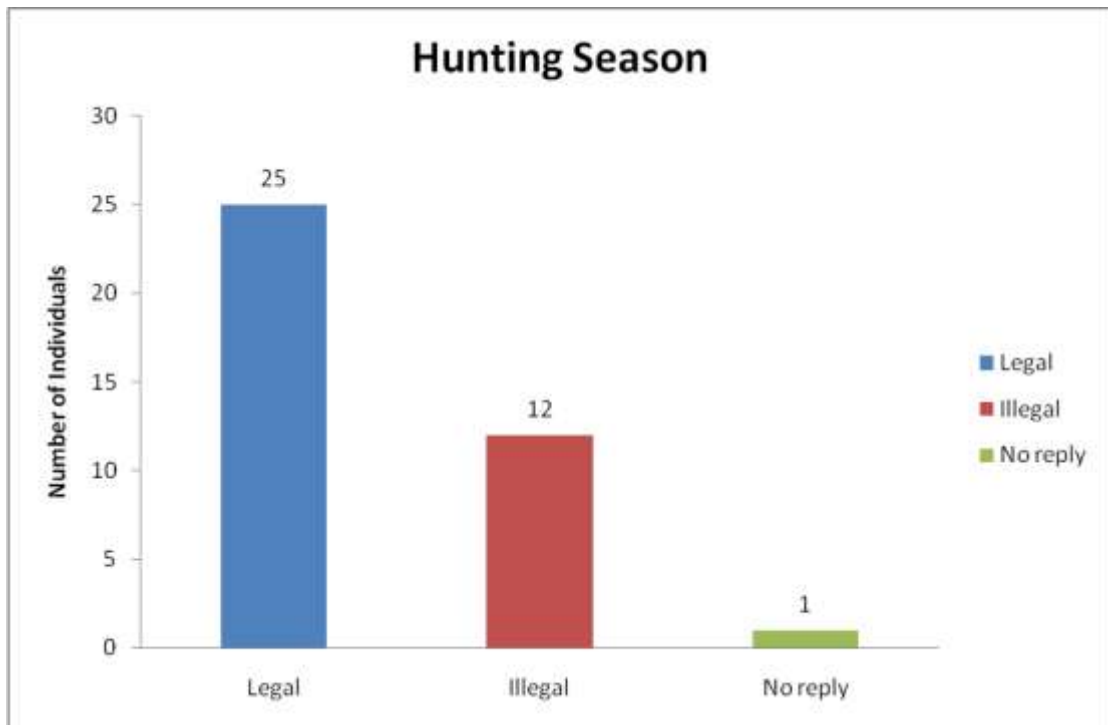


Figure 26. Number of hunters who declare that their hunting activity takes place according to the relevant greek legislation or not

Almost all of the hunters believe that a significant decrease of migratory birds population occurred during the last decades (Fig. 27). According to their opinion the intensive use of agrochemical products constitutes the main threat for birds followed by illegal killing, climate changes, poison baits and changes of land uses (Fig. 28).

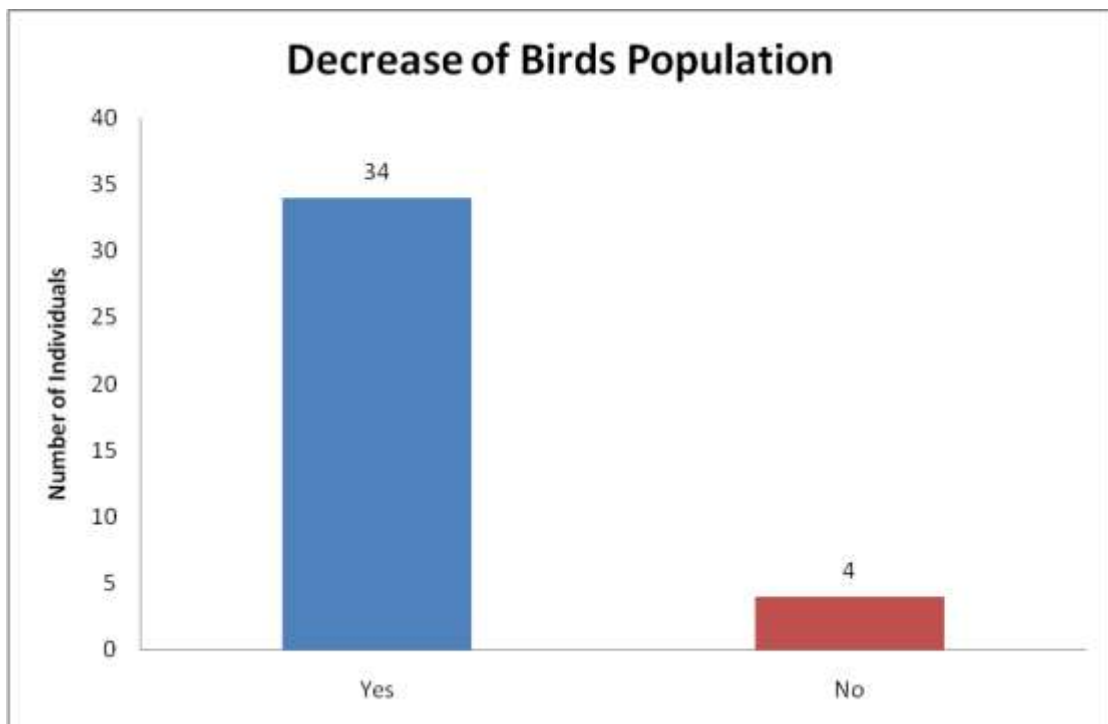


Figure 27. The opinion of hunters regarding the birds population trends during the last decades

Hunters from the Ionian Islands believe that killing activity is important for the local economy for a number of reasons (restaurants, stores for hunting equipment, accommodation etc.) (Fig. 29).

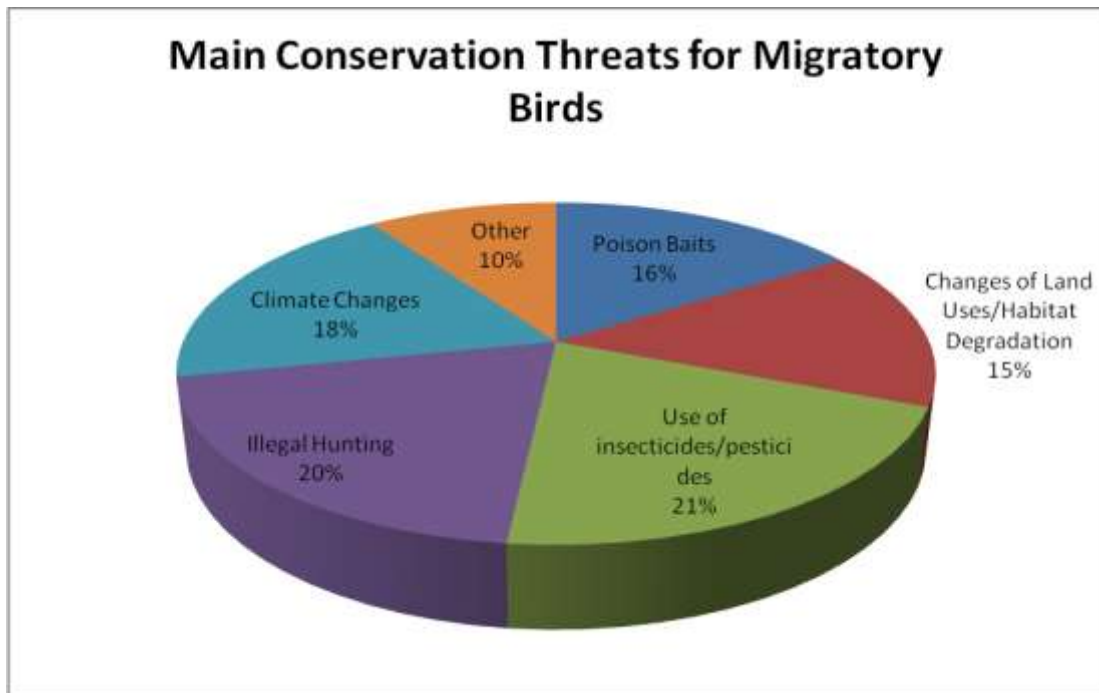


Figure 28. The main conservation threats for migratory birds according to local hunters in the Ionian Islands

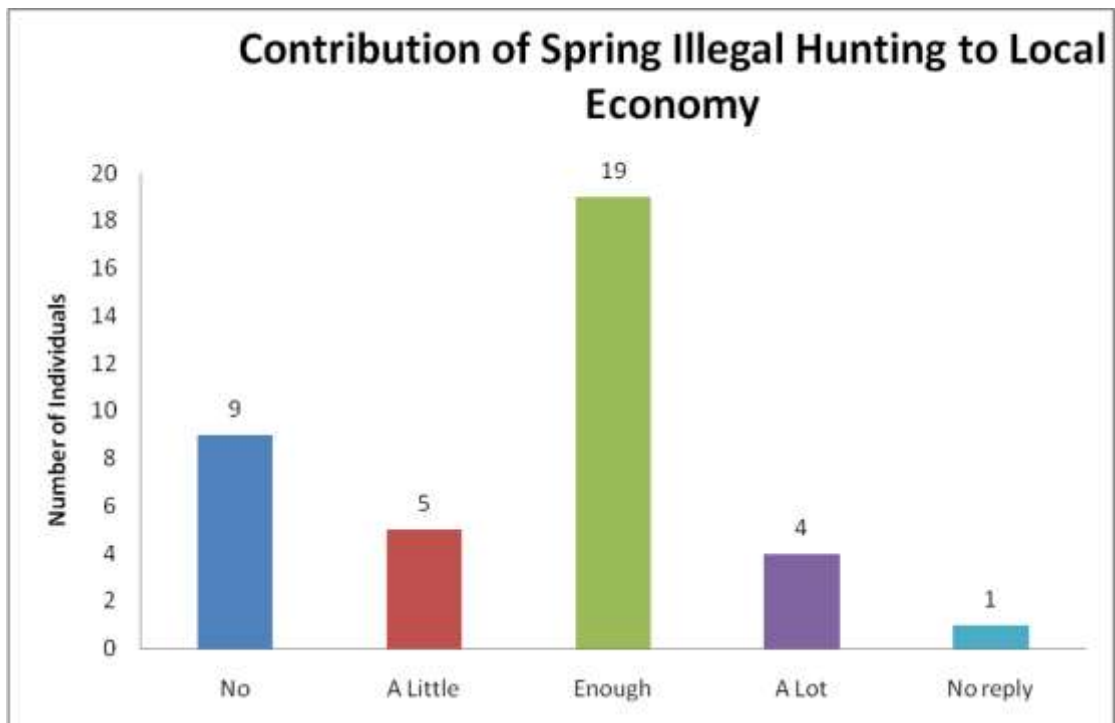


Figure 29. Contribution of hunting activity to local economy according to hunters

D. Local community (non hunters)

A total number of 51 residents (mostly from Zakynthos Island) was responded to the questionnaire based survey where 25 were males and 26 were females (Fig. 30). Additionally all the age classes of people belonged to local communities were represented whereas the majority of them belonged to the class of 26-40 years old (Fig. 31).

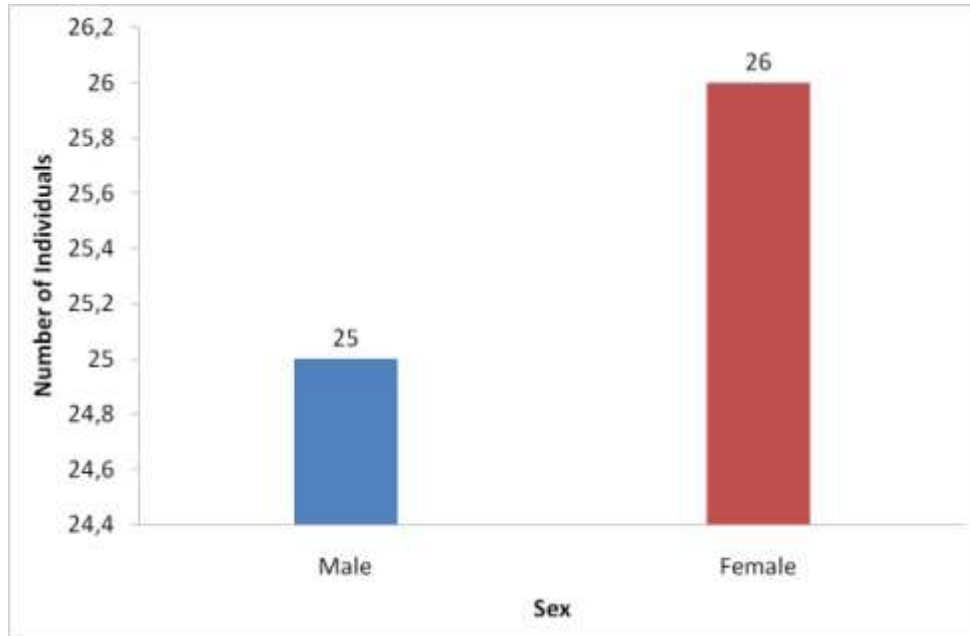


Figure30. Sex ratio of inhabitants participated to the current study

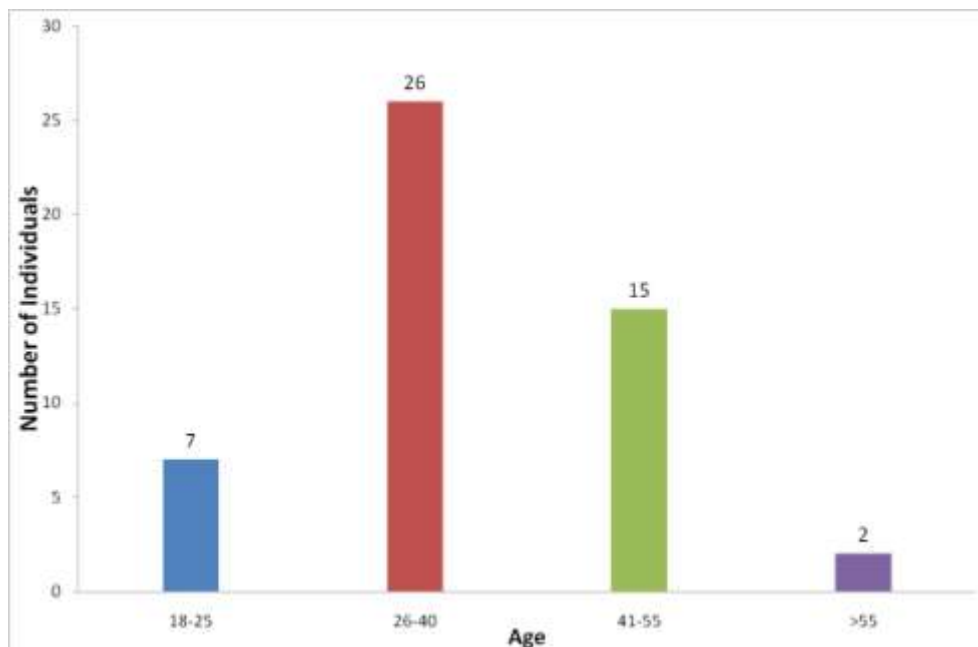


Figure 31. Age classification of inhabitants participated to the current study

The majority of the residents belonged to higher and secondary education whereas only 2 were of lower education (Fig. 32). Additionally and in an occupation level a wide distribution was observed as it is shown in Figure 33.

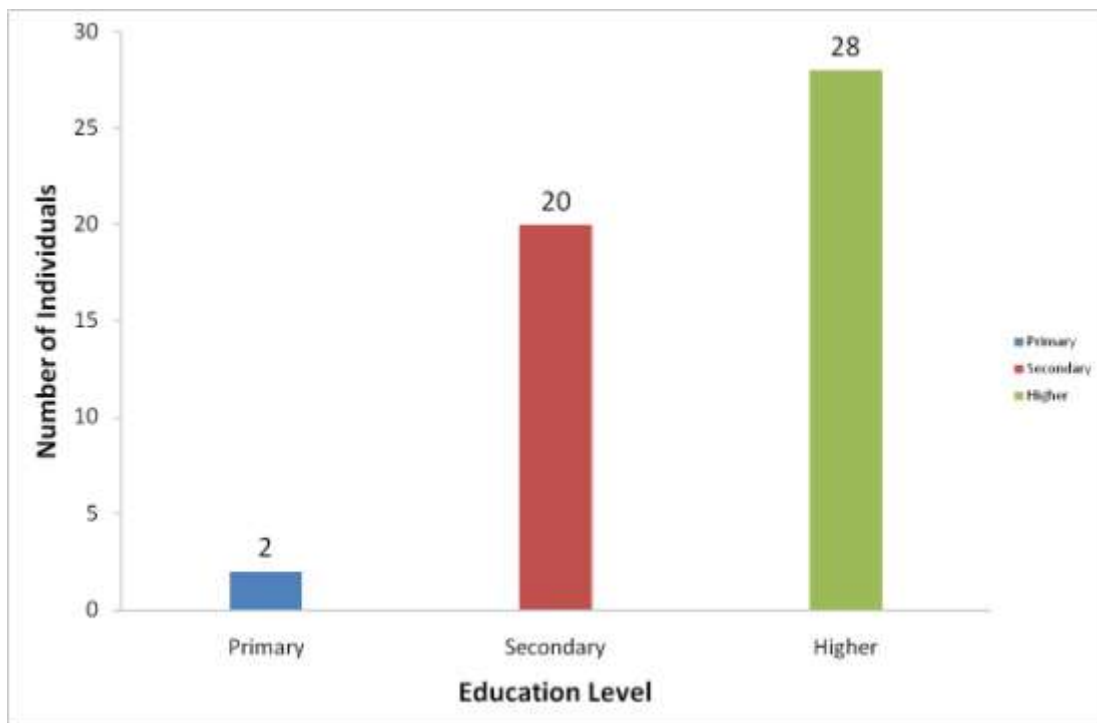


Figure 32. Education level of inhabitants participated to the current study

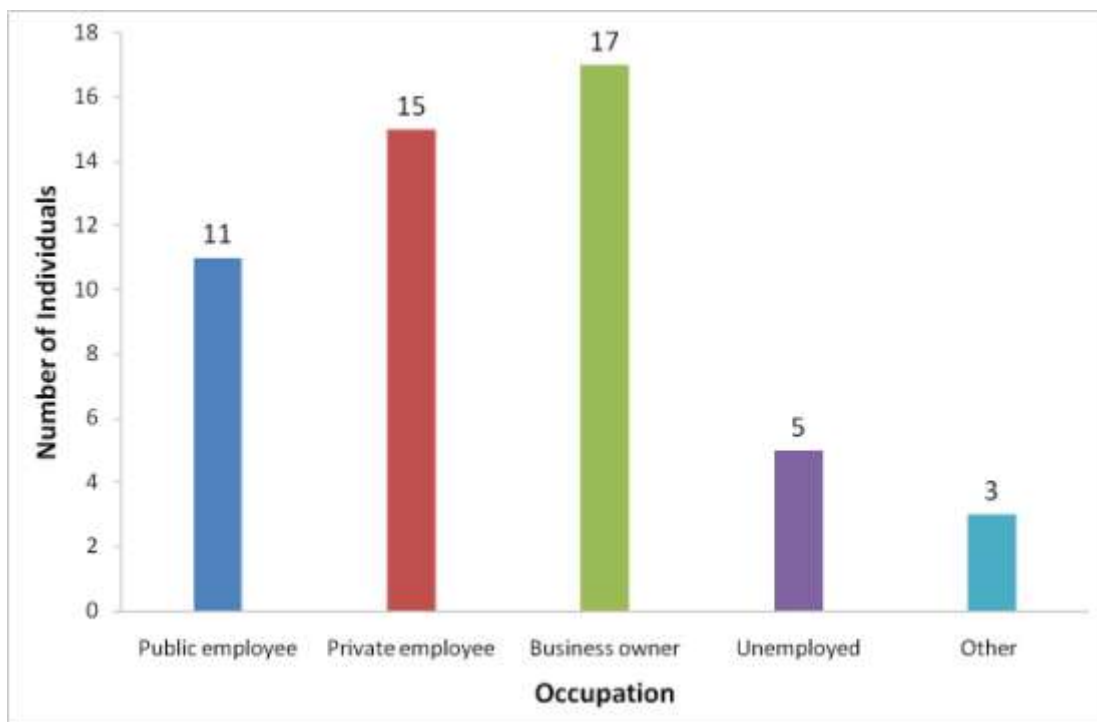


Figure 33. Type of occupation of inhabitants participated to the current study

The majority of the residents know that the Ionian Islands constitute a significant migration path during spring migration and feel that they have a good background for spring migration (Fig. 34 & Fig. 35).

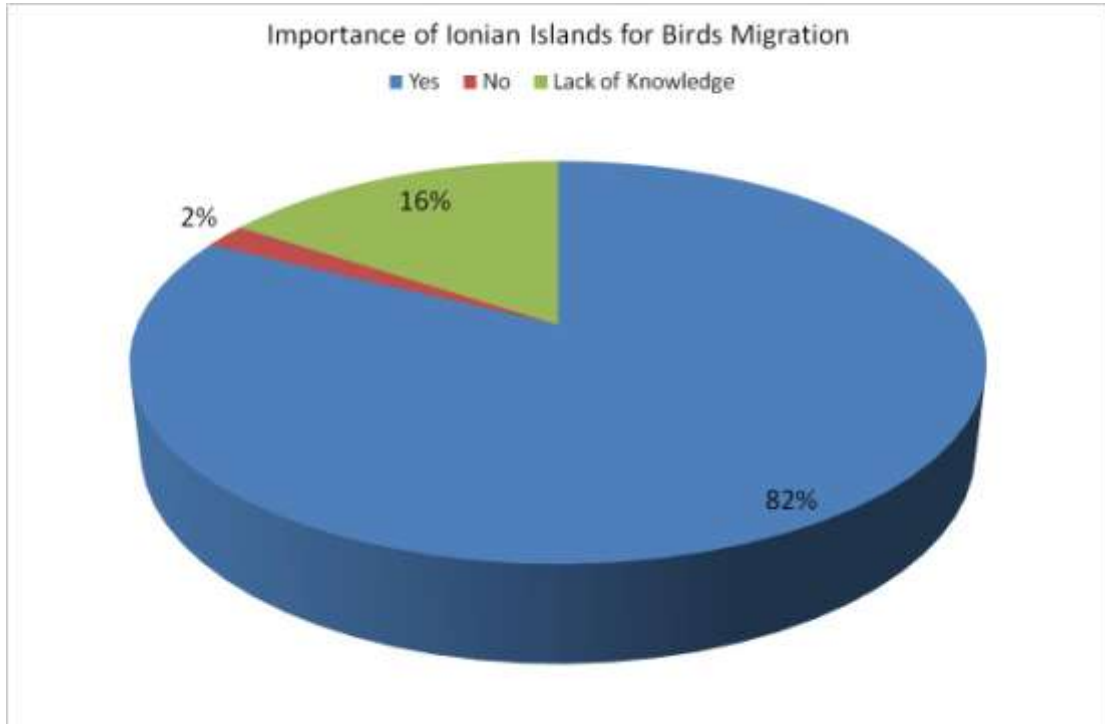


Figure 34. Residents knowledge for the importance of Ionian Islands on birds migration

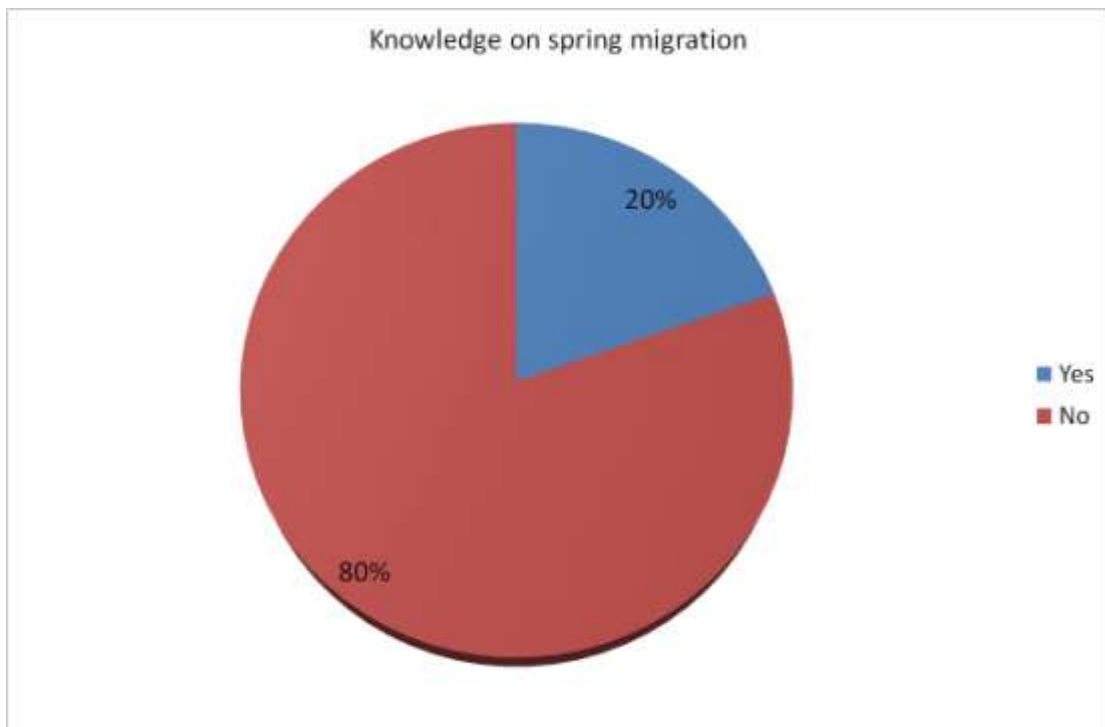


Figure 35. Residents knowledge on birds spring migration

The 78% of the inhabitants believe that they have a poor up to average level of knowledge for the conservation status (including population, threats etc.) of the avifauna biodiversity with emphasis on migratory birds (Fig. 36). The bodies that trust so as to receive update

information for conservation issues on birds are mainly environmental NGOs and in a lesser extent by forestry services, higher education institutes, the greek ministry of environment and hunting federations (Fig. 37).

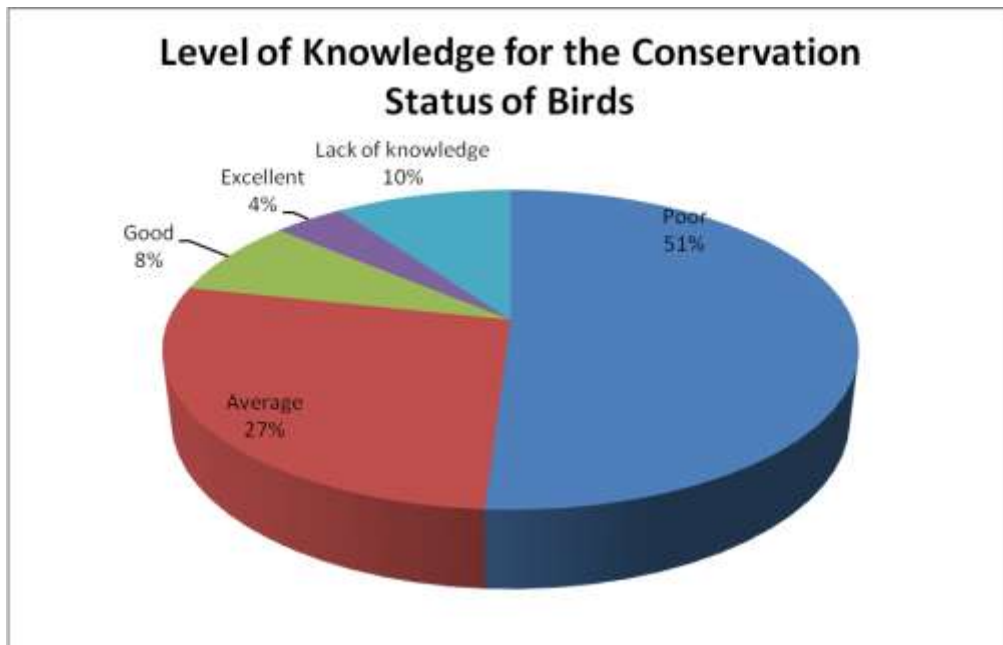


Figure 36. Level of knowledge of the local community (non hunters) on birds conservation status

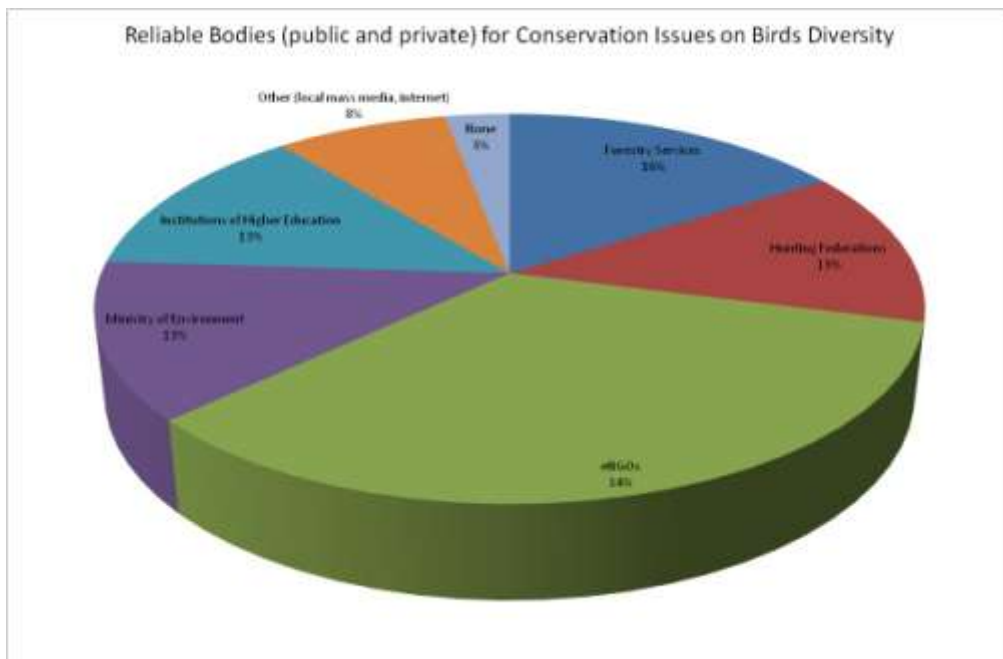


Figure 37. Services that local community trust for receiving reliable information for the conservation status of birds

The majority of residents believe that a decrease of migratory birds population occurred during the last decades (Fig. 38). It is worthwhile to mention that 50% of the interviewed

inhabitants believe that the decrease of migratory bird population is more than 20% and rises up to 50% during the last years. According to their opinion poaching constitutes the most significant conservation threat for birds constitutes the main threat for birds followed by the intensive use of agrochemical products, changes of land uses, climate changes and poison baits (Fig. 39).

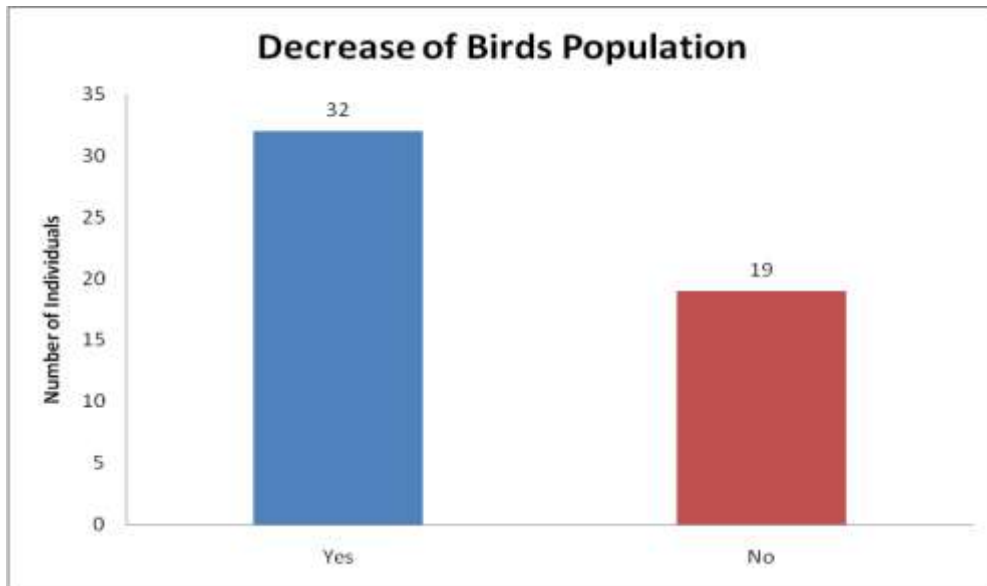


Figure 38. The opinion of inhabitants regarding the birds population trends during the last decades

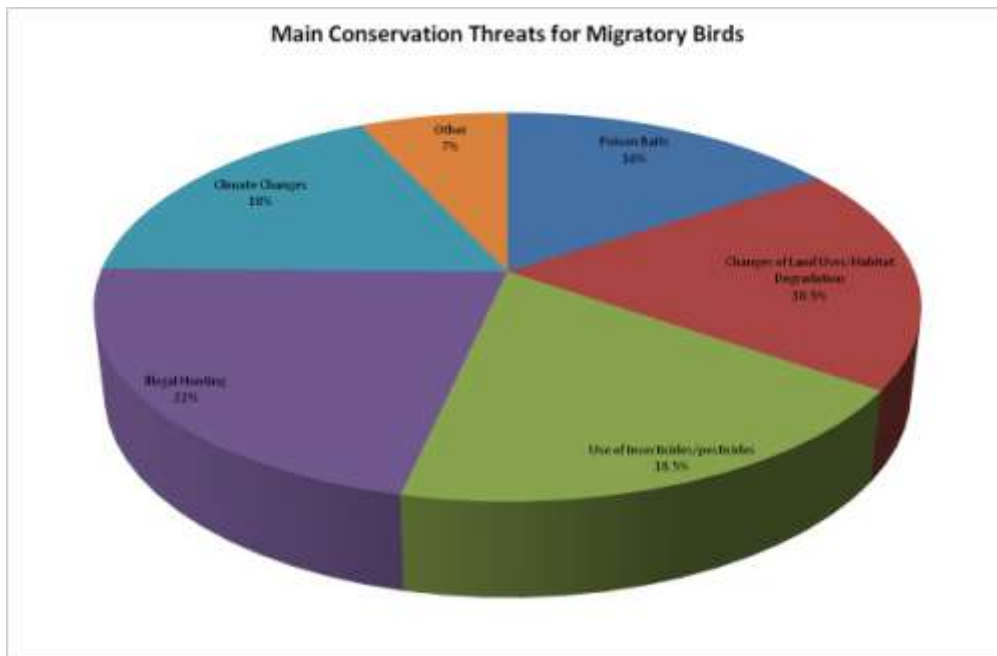


Figure 39. The main conservation threats for migratory birds according to the local community of the Ionian Islands

In general, local community believes that illegal killing activity is not significantly contributing to the local economy since only 12% has an opposite opinion. This is also in contrast with what local hunters declared for the same question (Fig. 40).

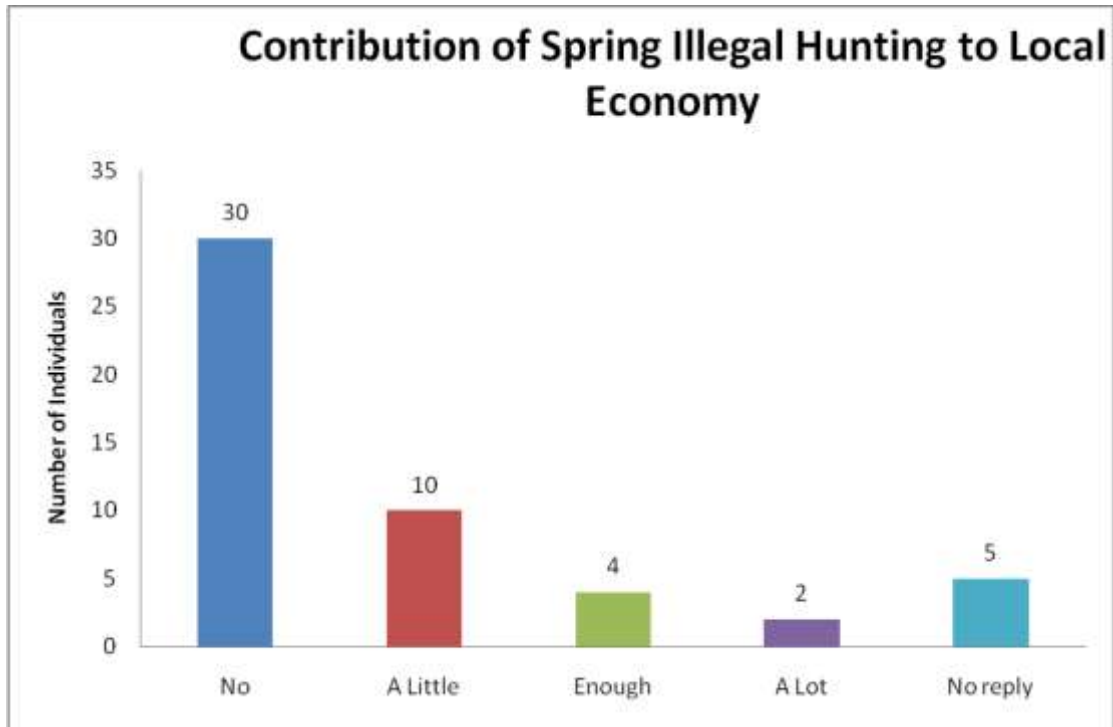


Figure 40. Contribution of hunting activity to local economy according to local community (excluding hunters)

E. Authorities

The majority of authorities representatives have declared that illegal killing during spring migration is a common phenomenon as it is shown in Figure 41. The 66% of the interviewed staff of authorities noted that they have a good knowledge of birds spring migration in the Ionian Islands (Fig. 42).

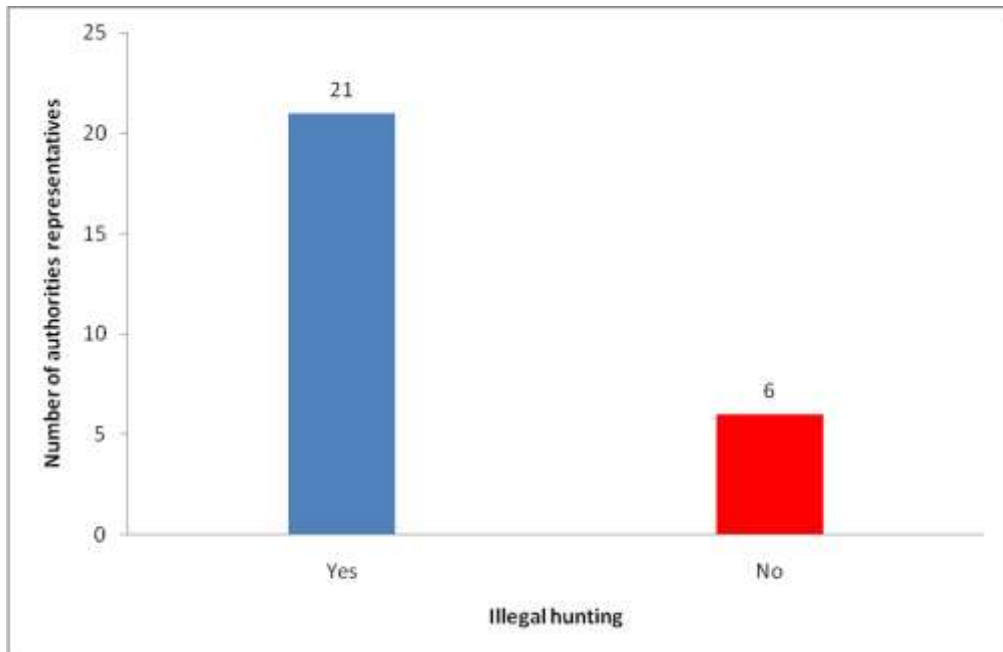


Figure 41. Number of authorities representatives declared that illegal hunting during spring migration constitutes a common phenomenon

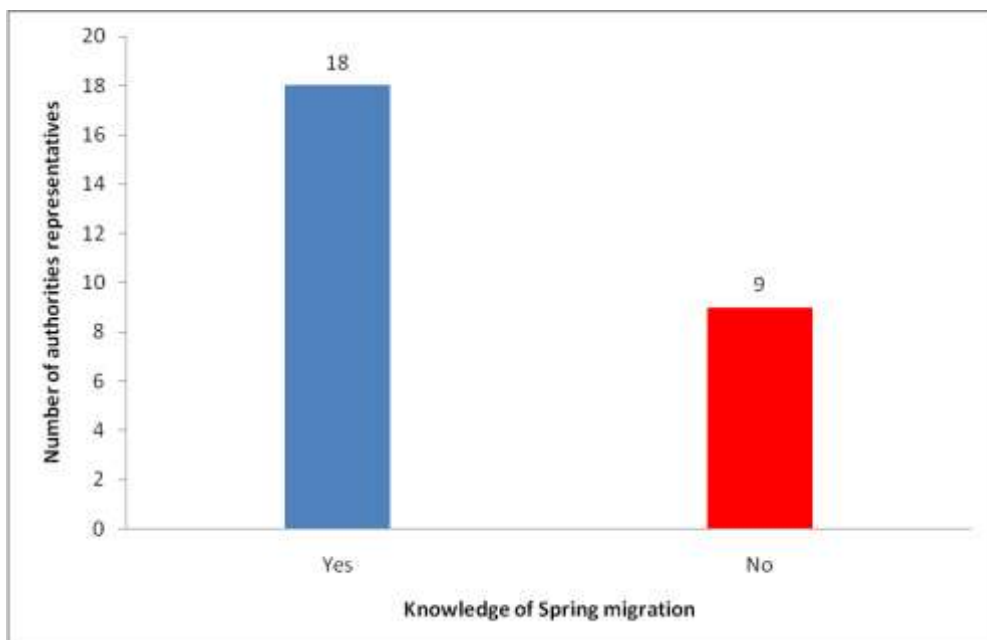


Figure 42. Knowledge on birds spring migration of authorities representatives in the Ionian Islands

Even if poaching during spring migration was noted by the majority of authorities, the illegal hunting pressure (number of illegal hunters) seems to have a wide estimation range, depending on regions spread around the Ionian Islands (e.g. Zakynthos, Corfu, Paxoi etc.) (Fig. 43). The respective data regarding the annual number of charges for poaching have also a wide range as it can be observed in Figure 44.

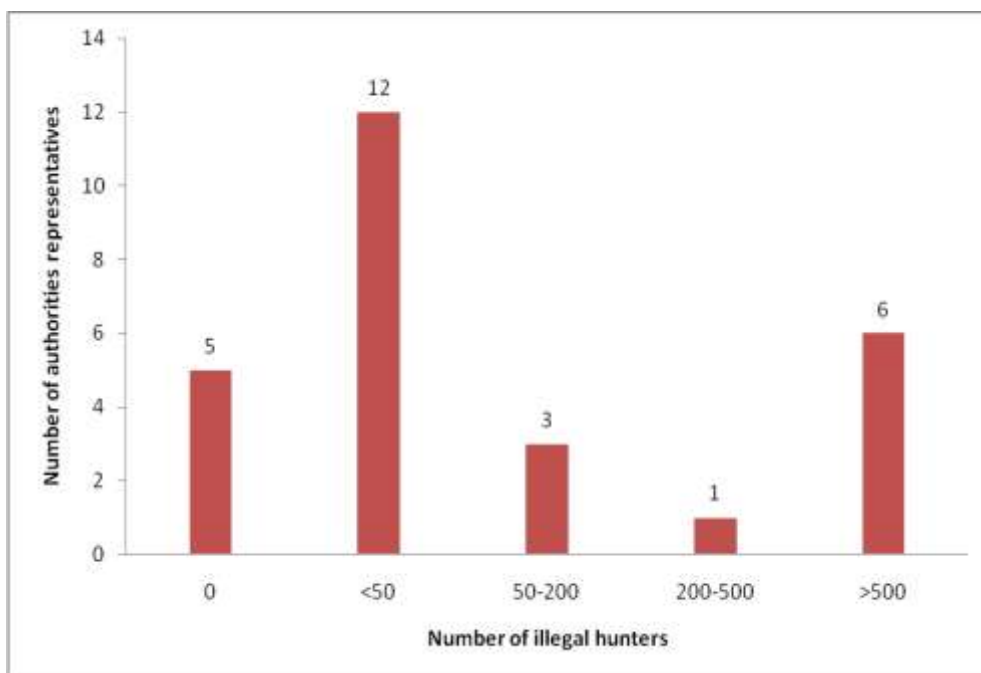


Figure 43. Knowledge on birds spring migration of authorities representatives in the Ionian Islands

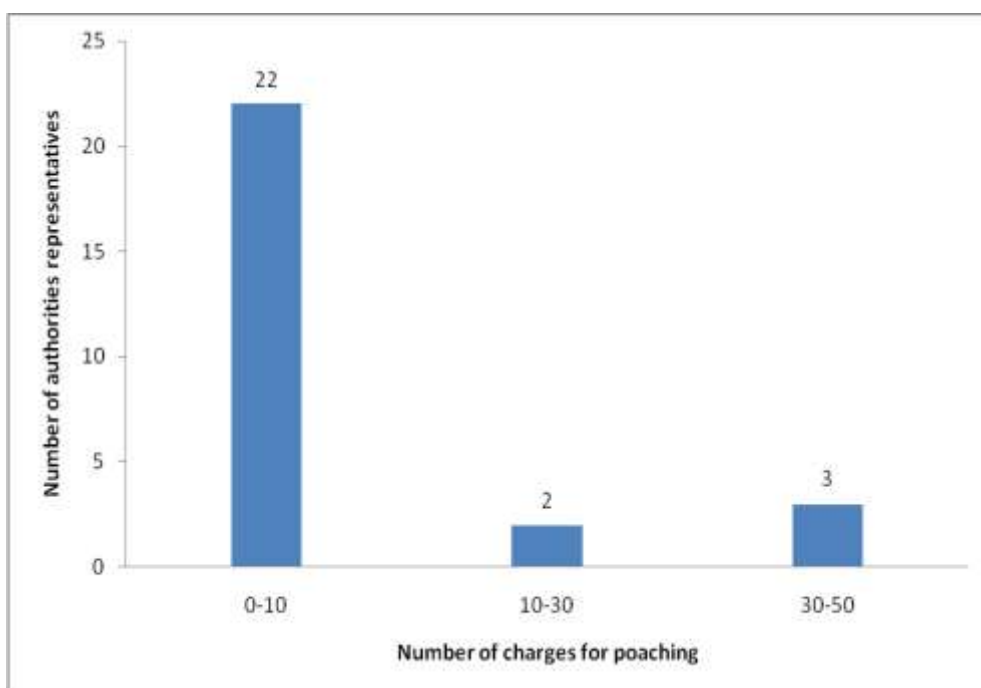


Figure 44. Annual number of charges for poaching received by responsible authorities for wardening-patrolling protected areas

A decrease of charges for poaching received by local authorities is declared during the last years (Fig. 45). Furthermore the staff of responsible authorities for patrolling against poaching replied that a lack of coordination of public awareness campaigns for illegal killing during spring migration is noticeable (Fig. 46).

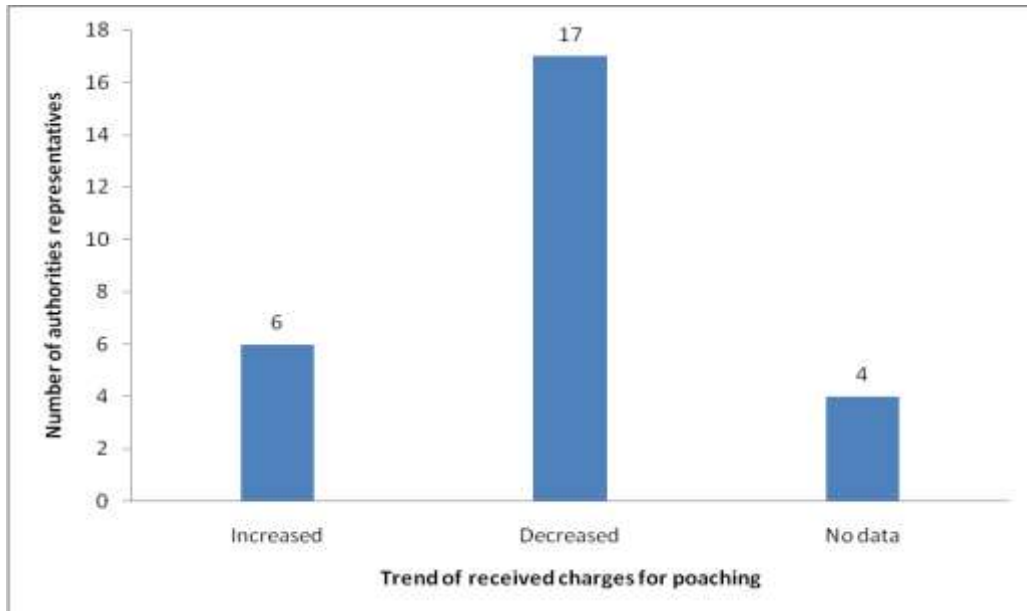


Figure 45. Trend of charges for poaching received by local authorities in the Ionian Islands during the last years

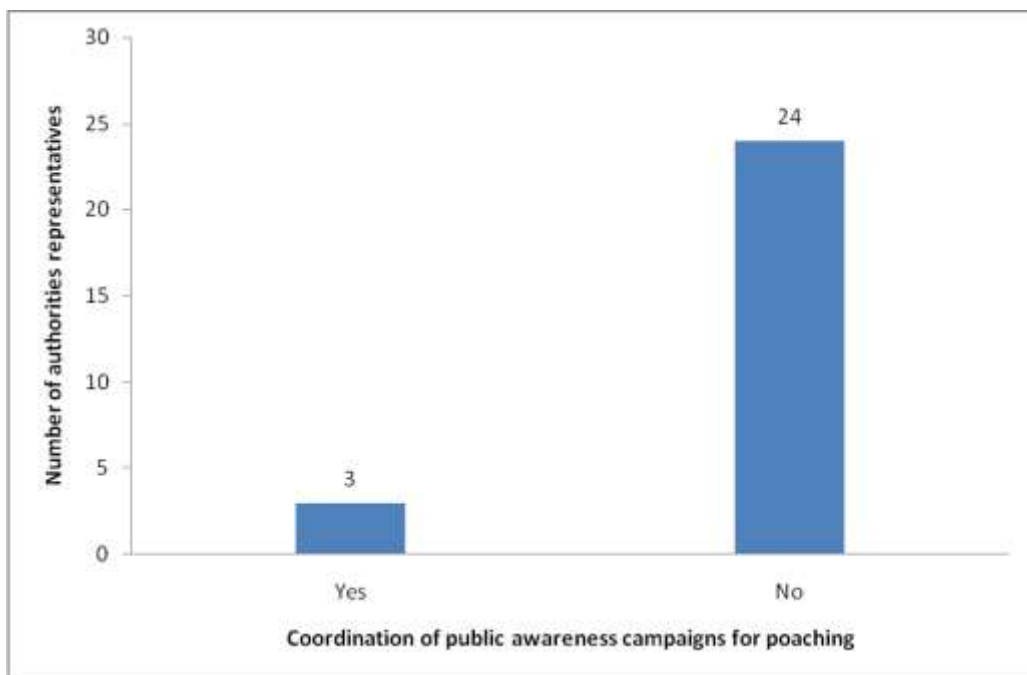


Figure 46. Lack of organizing public awareness campaigns for poaching in the Ionian Islands

The personnel of local authorities showed different opinions regarding the level of contribution of poaching to local economy since the 37% of the interviewed individuals gave a significant positive impact whereas the 33% has a complete opposite thought (Fig. 47).

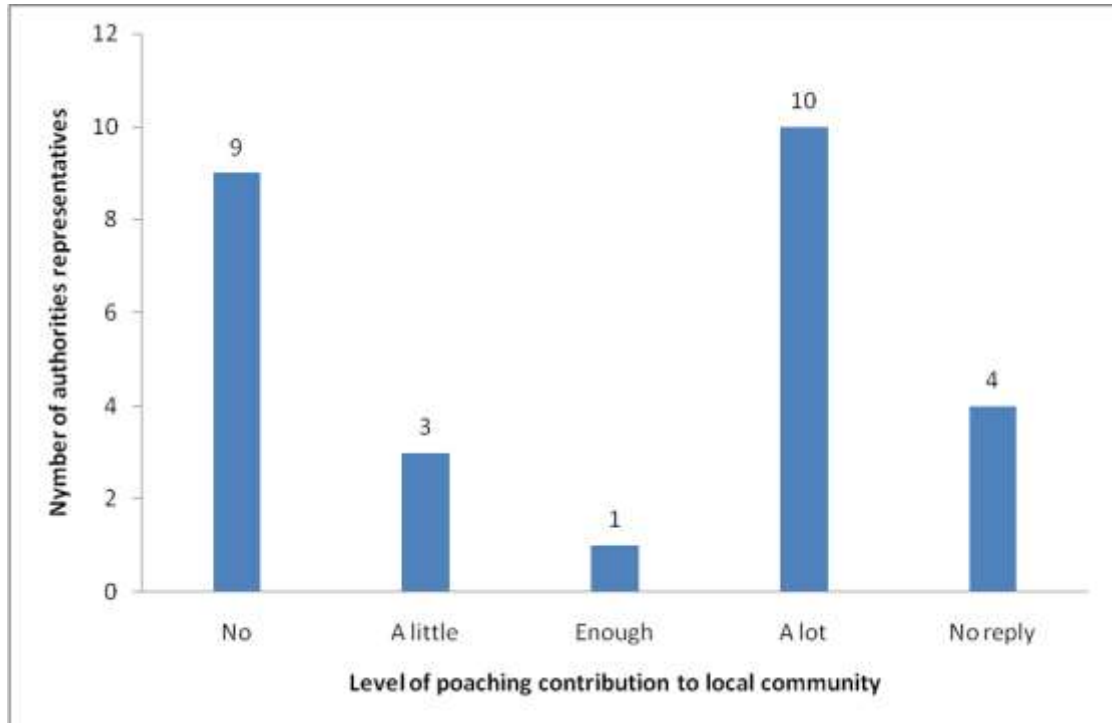


Figure 47. Level of poaching contribution to local economy according to authorities responsible for wardening-patrolling the natural protected areas in the Ionian Islands.

DISCUSSION

Illegal killing has deep social and cultural roots and understanding this them constitutes a complicated and difficult task. Poaching during spring migration in the Ionian Islands constitutes such an example. The current study is trying to gain a vital knowledge of the meanings attached to the practice of poaching during spring migration in the Ionian Islands in western Greece.

Schoolchildren according to our preliminary results appear willing to participate to future Environmental Education (EE) projects independently of their previous experience on this specific form of education. Children's demand for further EE activities could be an advantage towards changing attitudes in the local community where a significant participation of schoolchildren in hunting activities was revealed. Enhancing EE projects through new specific kits of education material (as it is planned via the current LIFE project) could contribute to the elimination of the so-called "tradition" of spring killing in the Ionian Islands and will serve the needs of the new generations for more information about environmental topics.

Local hunters are influenced mainly by their families and thus poaching cannot be understood only as an individual action but has to be explained as a local social phenomenon. It has to be mentioned that despite the fact that hunters declared a complete knowledge of the legislation for hunting regulations a 33% of them revealed an illegal killing activity during spring months. They also believe that poaching is not a significant threat for the conservation status of migratory birds and that intensive use of agrochemical products constitutes the main threat for birds. The latter has to be combined with the trust which hunters appear to show to hunting federations for receiving updated knowledge with regards to conservation issues. Hunters also declare that killing activity (including poaching) is a significant profit for the local community.

Local community (excluding hunters) know about the value of the Ionian islands and islets as spring migratory stopover sites and showed a significant willing for more information about the conservation status (including population, threats etc.) of migratory avifauna species. In contrast with hunters local community trust mainly environmental organisations and to a lesser and in a lesser degree forestry services, higher education institutes, the greek ministry of environment and last the hunting federations for receiving update information for conservation problems. The great difference with hunters society is that poaching is identified as the main conservation threat for migratory followed by the intensive use of agrochemical products, changes of land uses, climate changes and poison baits. Additionally the local residents believe that illegal killing activities is not significantly contributed to local economy and this is also in contrast with what local hunters declared for the same question.

The staff of local authorities which are responsible for wardening the natural protected areas in the Ionian Islands have declared that illegal killing during spring migration is a common phenomenon even if the relevant charges have been increased, possibly as a result of a more severe and coordinated patrolling in the study area (e.g. the case of Strofades Islands). A lack of a common data base at a national scale regarding the illegal killing pressure (e.g. number of illegal hunters, significant areas of poaching etc.) was also found. Moreover the staff of responsible authorities for patrolling against poaching showed indirectly that public awareness campaigns which will be referred to illegal killing during spring migration have to be encouraged and enhanced.

Even if the study was based on non direct data through distributed questionnaires and they have to be considered with caution, an urgent need to assess the total magnitude of poaching as a socioeconomic and environmental problem in the Ionian Sea is needed. Furthermore the assessment of the significance of this conservation threat is a prerequisite in order to propose and plan effective conservation actions to reduce the respective impact on migratory bird species. Additionally it is assumed that the collected information of the current study will be used as a baseline data set in order to assess the efficiency of the LIFE planned public awareness campaign for spring poaching.

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ANNEX (Questionnaire for schoolchildren)

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

1. Φύλο: Αγόρι Κορίτσι
2. Ηλικία: 6-11 12-14 15-18
3. Έχεις συμμετάσχει σε περιβαλλοντικές δραστηριότητες εκπαίδευσης στο σχολείο σου;
- Ναι Όχι
4. Θα σε ενδιέφερε να υπάρχει μάθημα στο σχολείο σου το οποίο θα ασχολείται μόνο με θέματα που αφορούν το περιβάλλον;
- Όχι Μάλλον όχι Μάλλον ναι Σίγουρα ναι
5. Το νησί στο οποίο κατοικείς είναι σημαντικό για τη μετανάστευση των πουλιών;
- Ναι Όχι Δεν γνωρίζω
6. Ονόμασε ένα πουλί που έρχεται στο νησί σου την άνοιξη
-
7. Το κυνήγι πουλιών στην περιοχή σου είναι ένα φαινόμενο:
- Έντονο Συχνό Περιορισμένο
8. Έχεις παρακολουθήσει κυνήγι πουλιών στο φυσικό περιβάλλον;
- Ναι Όχι
9. Εάν ναι, ποια εποχή παρακολούθησες κυνήγι;
- Χειμώνας Φθινόπωρο Άνοιξη Καλοκαίρι
10. Παρακολούθησες κυνήγι με κάποιον ενήλικα;
- Πατέρας Μητέρα Άλλο μέλος της οικογένειας Φίλοι
11. Θεωρείς ότι το κυνήγι επηρεάζει τη μετανάστευση των πουλιών την Άνοιξη όταν έρχονται από την Αφρική για να φωλιάσουν στην Ευρώπη και μερικά από αυτά στη χώρα μας;
- Όχι Ναι
- Αν ναι, πως επηρεάζεται η μετανάστευση των πουλιών από το κυνήγι;
- Θετικά Αρνητικά
12. Υπάρχουν ειδικοί κανόνες στο κυνήγι για να προστατεύονται τα μεταναστευτικά πουλιά;
- Ναι Όχι Δεν γνωρίζω
13. Θα ήθελες να μάθεις περισσότερες πληροφορίες για τη μετανάστευση των πουλιών;
- Ναι Όχι
- Εάν ναι με ποιον τρόπο;
-
-
-

Σας ευχαριστώ!