

Did you tag an elk during the
Did you shoot any Turkeys which could not be recovered?
How many days did

YOUR QUESTIONS, ANSWERED

Questions often arise concerning our Hunter Questionnaire process, the importance of the data collected and how accurate or “true” the results are. The data hunters provide is a vital component in wildlife management decisions; therefore, it is essential we answer as many of your questions as possible, to help you understand why filling out these questionnaires is so worthwhile.

WHY IS IT NECESSARY TO SURVEY HUNTERS?

Game populations are a limited resource. Hunting influences that resource. The question is, how much? To determine the number of animals taken by hunters each year, we must interview or survey hunters to find out if they were successful. The department uses harvest information, along with species population counts, to determine what influence hunting has and what limits must be set to maintain healthy game species populations. The Hunter Questionnaire is how we survey hunters.

HOW LONG HAVE YOU BEEN SURVEYING HUNTERS?

The Arizona Game and Fish Department has used the current Hunter Questionnaire survey technique (with a few minor variations) since the late 1950s; prior to that, a report card attached to the permit-tag was used.

Using mailed questionnaires provided a better estimate of harvest levels and hunter days afield, as well as information on weapon type used, age class and sex of animals killed, area hunted and wounding rates. These data are accurate and long-term enough to provide trend information to wildlife managers, who use the information for establishing season dates, bag limits and weapon types for upcoming hunts. Today, we still ask the same basic question, “So, how’d you do?” The difference is a scientific approach that gives us close to a 100 percent confidence in the accuracy of our findings.

The department has used the same form for the past 25 years, so it’s time for a makeover. To improve the Hunter Questionnaire Program, questionnaires will be redesigned to provide you with background information about the program.

This year the department is making the Hunter Questionnaire response process easier. Hunters will be able to complete the questionnaire online — a new feature we’re sure you will appreciate.

Arizona Hunter Questionnaire: New Look, Same Purpose

An Arizona Hunter Questionnaire — more junk mail, right? **Definitely not!** This piece of mail helps Arizona Game and Fish Department biologists make sound decisions regarding hunting in Arizona. **Your response is key.** If you would like to see the new questionnaire, visit www.azgfd.gov/magazine.

By Amber Munig

Did you use a: Centerfire rifle Handgun Muzzleloader rifle

General or Muzzleloader Season?

Was the antelope a buck?

Was the deer a Whitetail?

you hunt?

WHAT IS YOUR SCIENTIFIC APPROACH?

The department currently mails a business-reply postcard questionnaire to hunters. Resulting harvest estimates are relatively precise (generally plus-or-minus 5 percent to 9 percent for individual units, less than 3 percent sampling error statewide). But questionnaires probably overestimate (bias) harvest by 5 percent to 10 percent because successful applicants who participate in a hunt are more likely to return questionnaires than those who do not participate, and successful hunters are more likely to return questionnaires than unsuccessful hunters. (This is known as “non-response bias.”)

Statewide, estimates of general season deer harvest are typically plus-or-minus 0.4 percent, although overestimated by 10 percent (in 2007, the estimate was 9,750 deer harvested statewide during general seasons, plus-or-minus 39 deer, although it was probably overestimated by 975 deer). A reasonable estimate of 2007 statewide general deer harvest was 8,736–8,814. Hunt recommendations take into account this range in harvest.

Surveying hunters more intensely (multiple mailings to improve questionnaire return rates) or requiring mandatory returns within the current system is not necessary. To increase response rates by 20 percent for general deer alone using the existing system would increase costs by 32

percent and improve precision by less than 1 percent (typically plus-or-minus 1–2 deer per hunt area).

Although our current method of estimating harvest is solid and science-based, getting the public to use the questionnaire and accept the data can be challenging. The best way to increase the accuracy and precision of our current process rests with increased cooperation and responsibility among all hunters to return their questionnaires. So take advantage of the new online response system this year and complete your Hunter Questionnaire.

WHY DO YOU CONTINUE TO USE THE SAME TECHNIQUE FOR YOUR HUNTER QUESTIONNAIRE PROGRAM?

Today, the department has decades of comparable data on which to base management decisions. Deadline dates have shortened and hunt structures have become more complex, but basically the program remains the same today as in the 1960s and 1970s. This consistency is maintained so long-term trends may be analyzed and appropriate management decisions made.

I WASN'T SUCCESSFUL IN MY HUNT. SHOULD I BOTHER TO FILL OUT THE HUNTER QUESTIONNAIRE?

An individual who receives a harvest questionnaire is a vital link to the final analysis. A response from someone who was unsuccessful in his or her hunt, or from someone who did not even attempt to use his or her permit-tag that year, is every bit as important as a response from someone who was



successful. Unsuccessful hunters and those who did not go in the field represent a cross-section of all hunters and we need to know their information.

WHAT BECOMES OF ALL THIS SURVEY INFORMATION AND WHO IS IT AVAILABLE TO?

The questionnaire information is compiled into harvest estimates for each hunt area by species. The harvest information is published each year in “Hunt Arizona: Survey, Harvest, and Hunt Data for Big and Small Game.” The Hunt Arizona book is available on our Web site (www.azgfd.gov/h_f/hunt_arizona.shtml) as a free document or as a bound book for a small fee from any Arizona Game and Fish Department office.

Arizona Hunter Questionnaires are a key component of wildlife management in Arizona. Hunters like you are the link between what happened during the hunting season and how that translates into next year’s hunting season. You are to be congratulated for your faithful and accurate efforts on behalf of Arizona’s wildlife management. Best of luck in your hunting efforts this year and always remember to fill out and return those hunter questionnaires as you get them. You may return your questionnaire response by mail as always, or you may further help us by completing your questionnaire online using the link provided on your hunter questionnaire. 🦌

■ Amber Munig is a statistician who specializes in game populations.

Did you hunt bears during the 2009 Spring Bear Season?

Bow and arrow Shotgun slug

Compound bow Recurve bow Long bow