REPORT ON

ACT 71 122nd SESSION OF THE SOUTH CAROLINA GENERAL ASSEMBLY (2017)

REPORT OF THE DEPARTMENT OF NATURAL RESOURCES

A Report on Black Bear Harvest and Hunting in South Carolina

June 2018
Executive Summary

Act 71 (2017) had no effect on traditional black bear hunting in Game Zone 1 (mountains), but rather, was an effort to provide a more flexible approach to administer black bear hunting in Game Zones 2, 3, and 4. Prior to Act 71, a statutorily based application and drawing process required hunters to apply and be selected for a limited number of tags to bear hunt in game zones other than Game Zone 1. This conservative approach was put in place in 2010 (Act 286) “to ensure the continued viability of the species” in areas being newly opened to bear hunting outside of Game Zone 1. The application and drawing approach was never required in Game Zone 1.

In 2011 a portion of Game Zone 4 (coastal) was open to bear hunting for the first time under this application and drawing process. Initial results of the coastal bear season were poor in terms of hunter opportunity and harvest of bears. It became apparent that the application and drawing format required to select hunters was not producing the desired result. Many of the successful applicants were not local hunters and had no opportunity to hunt private land which contains most of the bear habitat and bears in the 3-county area opened to bear hunting in Game Zone 4. This decreased the opportunity for selection of local hunters who had access to property inhabited by bears. In spite of a number of attempts to liberalize the application and selection process over a 6 year period, results remained poor with the number of hunters and bear harvest averaging 83 and 2 per year, respectively.

Act 71 eliminated the application and drawing requirement such that anyone could purchase a bear tag and participate in the hunt as was the case in Game Zone 1. Additionally, the legislation provided authority for the South Carolina Department of Natural Resources (SCDNR) to set season dates and to guard against overharvest by setting a quota on the number of bears taken rather than by limiting the number of hunters participating in the hunt. If the harvest quota was met, SCDNR could close the season early after providing 24-hour notice of the impending season closure.

SCDNR filed regulations setting the 2017 bear season in Georgetown, Horry, Marion, and Williamsburg counties in Game Zone 4 for October 17-30 which coincides with the traditional season in Game Zone 1. The harvest quota was set at 30 bears and hunters were responsible for monitoring the harvest total and possible season closure if the quota was met. Results indicate that approximately 328 hunters participated in the coastal season under the new format compared to a maximum of 107 under the previous application and drawing system. A total of 14 bears were harvested during 2017, compared to 13 total bears harvested during 6 years of the previous system. In terms of increasing hunter opportunity and bear harvest, changes brought about by Act 71 should be considered a success. SCDNR recommends continuing this approach in Game Zone 4 and other areas outside of Game Zone 1 that may be opened to bear hunting in the future.
Introduction

Act 71 of the 122nd Session of the South Carolina General Assembly amended SC Code Section 50-9-665 relating to the issuance of bear hunting tags, so as to delete the requirement for hunters to apply for and be selected by drawing to receive a bear tag in game zones other than Game Zone 1 where there is no requirement for the application and selection process. Similarly, the Act amended SC Code Section 50-11-430 related to bear hunting, so as to delete reference to application and selection of hunters who receive bear tags in game zones other than Game Zone 1. The Act provided authority for the South Carolina Department of Natural Resources (SCDNR) to set seasons and other conditions for bear hunting in game zones other than Game Zone 1. Finally, Act 71 directed SCDNR to “provide a report of a one-year study by July 1, 2018 to the Chairman of the Senate Fish, Game and Forestry Committee and the Chairman of the House Agriculture, Natural Resources and Environmental Affairs Committee.” The Act specified the inclusion in the report of black bear harvest information in South Carolina.

In summary, this legislation made no changes to bear hunting in Game Zone 1; however, it removed certain restrictive provisions in the bear laws for the purpose of providing more flexibility for SCDNR to administer bear hunting as warranted in Game Zones 2, 3, and 4.

Background

South Carolina has two distinct black bear populations. The first population is in the mountains of Game Zone 1, which is part of a larger bear population inhabiting the Appalachian Mountains in the Carolinas, Georgia, and Tennessee. Bear hunting in Game Zone 1 has historically taken place under statutorily based seasons and methods. Based on limited DNA population modeling the mountain bear population in South Carolina is estimated at 600 with the annual harvest averaging 61 bears since 2000.

The second bear population is located in the northern coastal plain centered in the Lewis Ocean Bay and Carvers Bay areas of Horry and Georgetown Counties. Based on limited DNA population modeling the coastal population is estimated at 300 bears. There is evidence this coastal population shares some connection with the very dense bear population in southeastern North Carolina. However, development along the major river systems in the area appears to threaten this connection. Historically there was no bear hunting associated with the coastal population.

Bear populations in both the mountains and coastal area have expanded over the last twenty years. Bear sightings, nuisance complaints, and bear vehicle collisions have all increased during that time. Legislation in 2010 (Act 286) provided authority for SCDNR to set the conditions for hunting bears in game zones other than Game Zone 1. Specifically, there was interest among some legislators and citizens to initiate limited hunting of the coastal bear population in Game Zone 4. However, there was concern with the limited number and geographic distribution of coastal bears, as well as the possible isolation of the population from other source populations. With this in mind, the legislation required hunters to annually apply and be drawn for a limited number of bear tags in an effort “to ensure the continued viability of the species.” This required application and selection process is in contrast to the approach in Game Zone 1 under which anyone may purchase a bear tag and participate in the hunt.

Pursuant to the 2010 legislation SCDNR filed regulations to allow bear hunting in Game Zone 4 beginning in 2011. In keeping with the conservative approach specified by the
legislation, administration of the hunt included a number of details. Hunting was permitted only in Georgetown, Horry, and Williamsburg counties and included private, as well as most public (WMA) land. Although the application process was open to anyone, only 30 tags were available through the random drawing with 10 tags available in each of the 3 counties. This figure was based on the coastal bear population estimate of 300 and a 10 percent harvest from the population, which was supported in the scientific literature as being sustainable. The season was set at December 1-15. Reporting of harvested bears was required by state law and provided an opportunity for SCDNR staff to coordinate with successful hunters to collect biological data from harvested bears, something the agency has always done for bears harvested in Game Zone 1.

A total of 297 individuals applied for the inaugural 2011 coastal bear “lottery hunt” for the opportunity to be drawn for one of 30 tags. Following the drawing, 30 individuals were notified of their selection and 27 subsequently purchased a bear tag. One bear was taken during the two week December season. No changes were made to the hunt format for 2012 and 290 people applied, 30 were selected, 28 purchased a tag, and no bears were harvested. It became apparent that the hunt format was not producing the desired effect. Anecdotal evidence suggested that many of the successful applicants were not local hunters and had no arrangements to hunt private land which contains most of the bear habitat and bears in the 3-county area. This decreased the opportunity for selection of local hunters who had access to property inhabited by bears.

A number of changes were made during the next 4 seasons. Although the likelihood of bears denning during the early December season was low, discussions with local hunters indicated that bear movements were greater earlier in the season. Based on this, the season was changed to October 24 to November 5 beginning in 2013. Additionally, the number of available tags was increased stepwise from 30 to 170 by 2016. During this period application rates decreased such that the majority of applicants were selected annually. Also, by 2016 only 107 of 170 people drawn subsequently purchased a coastal bear tag. During the 6 year period a total of 13 bears were harvested under the lottery hunt approach. It had become clear that the application and drawing approach did not enable enough hunters who had access to property inhabited by bears to be drawn for one of the limited bear tags.

Following the 2016 season, hunters in the coastal bear hunting area expressed concern with the ongoing lack of success and declining interest associated with the lottery hunt format. In January of 2017 H3601 was filed to change the system of allocating bear tags and SCDNR worked with the General Assembly to develop a more flexible framework under which bear hunting in Game Zones 2, 3 and 4 could be administered. This legislation passed as Act 71 and had the following effects:

- Made no changes to bear hunting in Game Zone 1; statutory framework remained in place.
- Removed the application and drawing requirements to select hunters outside of Game Zone 1 enabling anyone to purchase a bear tag and participate in the hunt.
- Provided SCDNR authority to establish bear seasons outside of Game Zone 1.
- Provided SCDNR authority to establish a quota on bear harvest outside of Game Zone 1 in order to minimize the likelihood of overharvest in newly opened areas.
- Allowed SCDNR to close the season with a 24-hour notice when the quota is reached.
Pursuant to the authority granted by Act 71 and following discussions with key legislators, SCDNR amended Regulation 123-53 related to bear hunting to:

- Open bear season on private and most WMA land in Georgetown, Horry, Marion, and Williamsburg counties in Game Zone 4 from October 17-30 which coincides with the statutorily based season in Game Zone 1.
- Set a harvest quota of 30 bears based on an estimated coastal population of 300 and information in the scientific literature indicating that a 10 percent harvest on the population is sustainable.
- Require hunters to be responsible for monitoring the season status and possible early closure if the quota is met.
- Specify that harvested bears, which are statutorily required to be reported to SCDNR, be reported by midnight of the day of harvest.

Hunters could conveniently monitor the season status in Game Zone 4 by calling 1-844-SC1-BEAR and listening to a brief recording or by visiting www.dnr.sc.gov/bearcheck. Additionally, if a closure were to be instituted, SCDNR would immediately post that information prominently on the department’s webpage, on all department social media accounts, and via emails to bear hunters who provided that information. Bear hunters in Game Zone 1 had the ability to report harvest via three methods: 1) a phone call to the Clemson SCDNR office, 2) a phone call to 1-844-SC1-BEAR, or 3) an entry form at www.dnr.sc.gov/bearcheck. Bear hunters in Game Zone 4 were able to report harvest by two methods: 1) a phone call to 1-844-SC1-BEAR, or 2) an entry form at www.dnr.sc.gov/bearcheck.

**Harvest**

Act 71 specifically requires SCDNR to report on “the harvest summary of black bears in Game Zones 1-4.” Bear hunting is currently allowed only in Game Zones 1 and 4.

**Game Zone 1 (mountains)** – A total of 108 bears (61 males, 47 females) were reported harvested during the 2017 season in Game Zone 1 (Table 1). This represents the second highest harvest in history (127 bears in 2013) and was a 130 percent increase from the 47 bears reported harvested in 2016. Additionally, the harvest in 2017 was 77 percent above the average annual harvest of 61 bears since the year 2000.

**Game Zone 4 (coastal)** – A total of 14 bears (10 males, 4 females) were reported harvested during the 2017 Game Zone 4 season which was open only in Georgetown, Horry, Marion, and Williamsburg counties (Table 2). This represents the highest reported harvest during the 7 years bear hunting has been open in a portion of Game Zone 4. It is important to keep in mind that prior to 2017 hunters had to apply and be drawn for one of a limited number of bear tags. Beginning in 2017 the application/drawing process was eliminated such that anyone could purchase a bear tag and participate in the hunt. One of the goals of Act 71 was to develop a more flexible framework under which bear hunting in areas other than Game Zone 1 could be administered. This new approach should be considered successful in terms of providing more opportunity and harvesting more bears in Game Zone 4.
Table 1. Black bear harvest history in Game Zone 1 (mountains).

<table>
<thead>
<tr>
<th>Year</th>
<th>Male Harvest</th>
<th>Female Harvest</th>
<th>Unknown Sex</th>
<th>Total Harvest</th>
<th>Registered Dog Hunt Parties</th>
<th>Number of Dog Hunters</th>
<th>Number Tags Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>28</td>
<td>14</td>
<td></td>
<td>42</td>
<td>56</td>
<td>923</td>
<td></td>
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<tr>
<td>2001</td>
<td>10</td>
<td>11</td>
<td></td>
<td>21</td>
<td>50</td>
<td>833</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>15</td>
<td>12</td>
<td></td>
<td>27</td>
<td>53</td>
<td>932</td>
<td></td>
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<tr>
<td>2003</td>
<td>33</td>
<td>22</td>
<td></td>
<td>55</td>
<td>62</td>
<td>1104</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>14</td>
<td>15</td>
<td></td>
<td>29</td>
<td>70</td>
<td>1238</td>
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<tr>
<td>2005</td>
<td>18</td>
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<td>34</td>
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<td>1140</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>24</td>
<td>27</td>
<td></td>
<td>51</td>
<td>80</td>
<td>1275</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>28</td>
<td>30</td>
<td></td>
<td>58</td>
<td>88</td>
<td>1404</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>28</td>
<td>16</td>
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<td>2009</td>
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<td>92</td>
<td>99</td>
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<td>2010</td>
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<td>17</td>
<td></td>
<td>35</td>
<td>79</td>
<td>864</td>
<td>954</td>
</tr>
<tr>
<td>2011</td>
<td>46</td>
<td>33</td>
<td>1</td>
<td>80</td>
<td>74</td>
<td>812</td>
<td>1110</td>
</tr>
<tr>
<td>2012</td>
<td>42</td>
<td>41</td>
<td></td>
<td>83</td>
<td>79</td>
<td>809</td>
<td>1102</td>
</tr>
<tr>
<td>2013</td>
<td>70</td>
<td>57</td>
<td>1</td>
<td>127</td>
<td>72</td>
<td>877</td>
<td>1285</td>
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<tr>
<td>2014</td>
<td>23</td>
<td>39</td>
<td></td>
<td>63</td>
<td>77</td>
<td>943</td>
<td>1195</td>
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<tr>
<td>2015</td>
<td>56</td>
<td>36</td>
<td></td>
<td>92</td>
<td>85</td>
<td>977</td>
<td>1325</td>
</tr>
<tr>
<td>2016</td>
<td>19</td>
<td>28</td>
<td></td>
<td>47</td>
<td>85</td>
<td>1010</td>
<td>1390</td>
</tr>
<tr>
<td>2017</td>
<td>61</td>
<td>47</td>
<td></td>
<td>108</td>
<td>89</td>
<td>1033</td>
<td>1536</td>
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<tr>
<td>Avg.</td>
<td>32</td>
<td>28</td>
<td>1</td>
<td>61</td>
<td>76</td>
<td>1065</td>
<td>1237</td>
</tr>
</tbody>
</table>

Notes: Dog hunt parties are required to register and provide a roster of hunters which provides data on number of hunters. There is no such requirement for still hunters, therefore, no hunter number data exists prior to 2010. The requirement for hunters to purchase a bear tag went into effect in 2010 which provides an estimate of total number of potential hunters.

Table 2. Black bear harvest history in Game Zone 4 (coastal).

<table>
<thead>
<tr>
<th>Year</th>
<th>Male Harvest</th>
<th>Female Harvest</th>
<th>Total Harvest</th>
<th>Number Applicants</th>
<th>Number Drawn</th>
<th>Number Tags Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>297</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>290</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>2013</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>241</td>
<td>70</td>
<td>57</td>
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<tr>
<td>2014</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>214</td>
<td>100</td>
<td>77</td>
</tr>
<tr>
<td>2015</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>232</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>245</td>
<td>170</td>
<td>107</td>
</tr>
<tr>
<td>2017</td>
<td>10</td>
<td>4</td>
<td>14</td>
<td></td>
<td>446</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>253</td>
<td>83</td>
<td>118</td>
</tr>
</tbody>
</table>

Notes: From 2011 to 2016 there was an application and drawing process for hunters to purchase one of a limited number of available tags. Beginning in 2017 the application and drawing requirement was eliminated such that anyone could purchase a tag with the maximum number of harvested bears being managed through a quota on harvest, not tags issued.
Black Bear Hunter Survey

Although Act 71 only required SCDNR to report on the bear harvest, the agency undertook a post season bear hunter survey in order to gain more insight into bear hunting activities in South Carolina. The 2017 Bear Hunter Survey represented a random mail survey that involved a single mail-out to all 1,982 individuals who received a bear tag in 2017 (Appendix 1). The survey was developed by Wildlife Section personnel and was executed following the close of the bear season. A total of 518 completed surveys were returned to SCDNR representing a 26 percent sample on the population of bear tag recipients.

Adjusted Harvest Estimates – Although reporting of harvested bears is required by state law, past experience indicates that not all hunters comply with this requirement. Information gained from the bear hunter survey provided an estimate of 14.3 percent for non-reporting. Based on this, the adjusted harvest estimate for Game Zone 1 was 123 bears and for Game Zone 4 it was 16 bears. This adjusted harvest estimate, which statistically accounts for lack of compliance with the reporting requirement, may be important in the future if reported bear harvest rates increase substantially. This is particularly the case if the coastal bear hunt continues to carefully be managed with a quota as it currently is.

Number of Hunters – Although 1,982 individuals received a bear tag for the 2017 season, the number of tags issued does not account for those individuals who did not hunt, nor does it provide an estimate of the number of hunters by game zone. Results of the survey indicate that approximately 1,353 individuals hunted in Game Zone 1 and 328 hunted in Game Zone 4 for a total of 1,681 hunters in 2017. Statewide, approximately 97 percent of hunters were South Carolina residents and 3 percent were nonresidents with no statistical difference in residency based on game zone hunted. It is important to note that the number of hunters in Game Zone 4 (328) far exceeds the maximum number of hunters (107) who were permitted to hunt under the previous application/drawing system. As previously stated, one of the goals of Act 71 was to provide more opportunity for individuals to participate in bear hunting, and these results provide a measure of success.

Hunting Effort and Success Rate – The bear season in both Game Zone 1 and 4 was October 17-30 which affords hunters 14 days of opportunity. Statewide hunting effort averaged 4.2 days per hunter with no difference in average effort per hunter between the game zones. This figure should be considered extraordinary given the relatively short season. By comparison, turkey hunters in South Carolina consistently average approximately 6 days of hunting during a 47 day season. In terms of total hunting effort, there were an estimated 5,547 man/days of effort in Game Zone 1 and 1,541 man/days in Game Zone 4 for a total of 7,088 man/days of effort hunting bears in South Carolina for 2017. Hunting success in terms of harvesting a bear was 11 percent which is very low compared to hunter success rates for deer and turkey which tend to be about 70 percent and 25 percent, respectively.

Bear Sightings – The 2017 Bear Hunter Survey asked hunters to record the number of bears they saw during the season. Given the low hunter success rate (11%) one would expect that bear sightings were low as well. However, statewide 53 percent of hunters reported seeing at least one bear while hunting with no statistical difference in sightings between the game zones.
This divergence between success rate and sightings may be explained by laws which prohibit the harvest of bears under 100 pounds or the harvest of sows with cubs. Additionally, it is assumed that many hunters are selective and are seeking a certain size class animal to harvest and all sightings do not result in shot opportunities.

The total number of bears seen per hunter averaged 2.0 statewide; however, there was a significant difference in total sightings between Game Zone 1 (1.8 bears) and Game Zone 4 (2.8 bears). This was primarily related to the sighting of bear cubs as hunters in Game Zone 4 saw significantly more bear cubs on the average (1.2 cubs) than hunters in Game Zone 1 (0.7 cubs). This may be explained in two ways. First, perhaps bears in Game Zone 4 are more productive in terms of litter size and survival than in Game Zone 1. Second, in Game Zone 1 half of the season is devoted to dog hunting and cubs may become separated from the sow during the chase leading hunters to see the adult but not the cub. This differential sighting of cubs between the game zones requires further investigation.

**Hunting Areas and Methods** – The 2017 Bear Hunter Survey asked hunters about the type of land they hunt in terms of public or private and if they hunted over agricultural crops. There were differences between the game zones in each case. In Game Zone 1 significantly more hunters (35%) indicated that they hunted public (WMA) land than in Game Zone 4 (10%). This is likely an artifact of the abundance of public land in the mountains compared to the coast and the fact that public land is the “jumping off point” for dog hunting in Game Zone 1.

On the other hand, significantly more hunters (21%) in Game Zone 4 hunted over agricultural crops than in Game Zone 1 (3%). This is likely related to the fact that there is much more agricultural production in the coastal area than in the mountains and coastal hunters are taking advantage of the fact that bears are attracted to these crops.

**Additional Information**

**Human-Bear Contacts** – Black bears are opportunistic feeders that have large home ranges. They occupy habitats that are also inhabited by humans. As bear and human populations have increased, so have human-bear encounters and complaints. SCNR records bear contacts because it helps the agency manage the growing and expanding bear population by providing important information on trends (Figure 1). However, there are factors other than the number of bears that affect the number of human-bear contacts in a given year. Food availability is important in this issue, particularly associated with the mountain population. SCNR has noted a strong relationship over time with mast production, acorns for example, and the number of human-bear contacts. In years where mast production is high in the mountains the number of contacts is low. On the other hand, human-bear contacts can increase sharply in years where there is little mast or a mast failure. In these instances bears inhabiting the mountains, where there is relatively little human presence, increase their movements in search of food and “spill” out of the mountains into areas with a much greater human presence. A similar but less dramatic trend is associated with coastal human-bear encounters and annual food availability.
SCDNR categorizes human-bear contacts according to their nature (Figure 2). Bears foraging in trash containers, birdfeeders and agricultural crops are the most common reports received by SCDNR. These common types of contacts can be minimized and SCDNR prints and distributes several educational items designed to inform residents about bear behavior and avoidance techniques.
Bear-Vehicle Collisions – SCDNR attempts to document bear-vehicle collisions, however, data collected by the agency ultimately depends on reporting of collisions by a number of other sources (Figure 3). As is the case with human-bear contacts, there can be common factors that explain annual variation in bear-vehicle collisions. Bear movements increase and decrease depending on annual food availability. In years with good food availability, bear movements and collisions tend to be lower and vice versa. Also important is development and construction of roads in areas inhabited by bears which affects the number of motorists. This was evident with the construction of the Conway Bypass (SC 22). This highway, which opened in 2001, runs along the northern border of Lewis Ocean Bay which has the highest density of coastal bears. Reported coastal bear-vehicle collisions spiked for a number of years following the opening of the highway but have since been lower and relatively stable.

Figure 3. Number of bear-vehicle collisions reported to SCDNR 2004-2017.

Summary

Hunter participation and bear harvest remained low for the coastal counties in Game Zone 4 open to bear hunting in spite of a number of attempts to liberalize the required application and selection process over a 6 year period. Act 71 remedied this issue by eliminating the application and drawing requirement so that anyone could purchase a bear tag and participate in the hunt. Additionally, the legislation provided authority for SCDNR to set season dates and to guard against overharvest by setting a quota on the number of bears harvested rather than by limiting the number of hunters participating in the hunt. If the harvest quota was met, SCDNR could close the season early after providing 24-hour notice of the impending season closure. This legislation made no changes to bear hunting in Game Zone 1. It removed certain restrictive
provisions in the bear laws for the purpose of providing more flexibility for SCDNR to administer bear hunting as warranted in new areas that could potentially be opened to bear hunting in Game Zones 2, 3, and 4.

SCDNR filed regulations setting the 2017 bear season in Georgetown, Horry, Marion, and Williamsburg counties in Game Zone 4 for October 17-30 which coincides with the traditional season in Game Zone 1. The harvest quota was set at 30 bears. Hunters were responsible for monitoring the harvest total and possible season closure if the quota was met. Results indicate that approximately 328 hunters participated in the coastal season under the new format compared to a maximum of 107 under the previous application and drawing system. A total of 14 bears were harvested compared to 13 total bears harvested during 6 years of the previous system. The 2018 bear hunting season will follow the same format with no changes in season dates, open counties, harvest quota or reporting methods & requirements.

SCDNR will continue to conduct post-season hunter surveys to assess hunter effort and success. Populations will continue to be monitored and research and survey methods will be evaluated. In terms of increasing hunter opportunity and bear harvest, changes brought about by Act 71 should be considered a success. SCDNR recommends and plans on continuing this approach in Game Zone 4 and other areas outside of Game Zone 1 that may be opened to bear hunting in the future.
Appendix 1. South Carolina Department of Natural Resources 2017 bear hunter survey.

2017 South Carolina Bear Hunter Survey

1. Did you bear hunt in SC this past season (2017)?
   1. Yes 2. No

   If you answered No to this question what Game Zone did you intend to hunt? (circle one)
   Game Zone 1 (mountain) Game Zone 4 (coastal)

   If you did not hunt bears this past season you may skip to question 9.

2. Did you harvest a bear in SC this past season? 1. Yes 2. No

3. Did you shoot but not kill or recover a bear in SC this past season? 1. Yes 2. No

4. Please record the SC counties you bear hunted in and the number of days hunted in each county this past season (2017). A day of hunting is defined as any portion of the day spent afield. Please do not give ranges (i.e. 4-6), rather provide absolute numbers (i.e. 5). Provide information only for yourself; not friends, relatives or others you may have hunted with.

<table>
<thead>
<tr>
<th>SC Counties You Bear Hunted</th>
<th># of Days Hunted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. If you hunted bears in the mountains (Game Zone 1) please indicate the total number of days spent Still Hunting and/or Party Dog Hunting. If you did not hunt in Game Zone 1 please skip this question.

<table>
<thead>
<tr>
<th>Total Days Still Hunting</th>
<th>Total Days Party Dog Hunting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What type of land did you bear hunt on this year? (circle one)
   1. Private 2. Public (WMF or Heritage Preserve) 3. I Hunted Both Private & Public Land

7. Did you hunt bears over any standing or harvested agricultural crops this year? 1. Yes 2. No

   If Yes, please list the type of crop(s) hunted over

8. Please indicate the total number of bears you observed while hunting in SC this past season.

<table>
<thead>
<tr>
<th>Total # Adult Bears Seen While Hunting</th>
<th>Total # Cubs Seen While Hunting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. How many years have you been bear hunting in SC?

10. Are you a resident of SC? 1. Yes 2. No

11. If yes, which county

   Separate and return this portion of the survey. Postage is prepaid. Please do not staple this form.
December, 2017

Dear Sportsman:

Black Bears are an important big game species in South Carolina. Therefore, it is important that this species be monitored for population status and harvesting activities. Wildlife resource managers require current and accurate information about bear hunting and harvests to aid in successfully managing this important natural resource and to optimize future hunting potential. To obtain this needed data, the South Carolina Department of Natural Resources (SCDNR) is conducting a survey of all hunters who received a bear tag during the fall of 2017.

To draw accurate conclusions it is very important that you complete the survey and return it. Please take time to read each question. Even if you did not hunt black bears this fall please indicate this by answering the appropriate questions and moving on to the next set of questions. Please note that complete confidentiality will be given to you. There is no number on your survey form, therefore, there is no way to link your responses to you.

Keep in mind that the purpose of the survey is to determine bear hunter effort and other hunting statistics in South Carolina and not to determine whether game laws are observed. By accurately answering the survey questions you will enable SCDNR biologists to better manage the black bear resource for you and other citizens of the state. Therefore, it is very important that you take a few minutes to complete this survey and mail it. Return postage is prepaid.

The results from the survey will be posted on the SCDNR website once completed.

Thank you for your assistance.

Jay Cantrell
Wildlife Biologist
Asst. Big Game Program Coordinator

PLEASE MAIL YOUR SURVEY AFTER SEPARATING THIS HALF FROM THE SIDE ON WHICH YOUR ANSWERS HAVE BEEN ENTERED. NO POSTAGE IS NECESSARY.

If you have questions regarding this survey, please call 803-734-3886 or write 2017 Black Bear Hunter Survey, SCDNR, P.O. Box 167, Columbia, SC 29202.

The South Carolina Department of Natural Resources prohibits discrimination on the basis of race, color, gender, national origin, disability, or age. PARK ALL INQUIRIES TO THE OFFICE OF HUMAN RESOURCES, P.O. BOX 167, COLUMBIA, SC 29202.