

THE CONSERVATION QUARTERLY

Spring 2015 edition

Nature notes & news from the Lavaca County Wildlife Management Association



This spring edition of The Conservation Quarterly is going out extremely late. Normally, this newsletter would go out in March or April, but it was delayed for numerous reasons. So as not to cause confusion, this newsletter does not contain the annual herd composition survey that normally arrives about this time of the year. The herd composition survey, as well as information on the fall meeting will be in the summer newsletter, which should arrive about the third week of July.



WANTED ... your 2015 LCWMA membership dues

If you haven't already done so, please mail in your 2015 membership dues as soon as possible. LCWMA dues are still \$20 and may be sent to the LCWMA at the following address:

LCWMA
P.O. Box 524
Hallettsville, TX 77964

Remember, any LCWMA member who wishes to be eligible to receive doe permits, for the 2015-2016 hunting season, must pay their 2015 dues by August 15, 2015. However, we prefer that everyone pay their dues now, to allow enough time to process the payments and mail receipts. Mailing early also helps avoid the glut of phone calls and emails from frantic members, who aren't sure if we will receive their payment by the deadline.

You should receive a receipt once your payment has been processed. Please be patient, though, as we have only one Treasurer, and he like all LCWMA officers are volunteers, meaning they handle LCWMA business in their spare time. If you don't receive a receipt within one month of mailing your membership dues, please contact LCWMA Treasurer, Sam Bordovsky by phone at 361-798-1813 or by email at sbordovsky@gmail.com. To avoid confusion, and to expedite payment processing, please mail your dues directly to the LCWMA. Please do not mail payments to, or drop them off at, the Texas Parks and Wildlife office in Hallettsville.

Mark your calendars

This year's fall meeting of the LCWMA will be on Sunday, September 20, 2015 at the Knights of Columbus Hall in Hallettsville. Please make plans to attend this meeting. Last year's meeting was well attended, and we would love to see even greater membership attendance at this year's meeting. More details of the meeting will be released in the summer edition.

Tell your neighbors

If you know someone interested in joining the LCWMA please get them signed up as soon as possible. Remember, new members must be enrolled in the LCWMA before August 15, 2015, to be eligible to receive doe permits for the 2015-2016 hunting season. Those with internet access can download an enrollment form off the LCWMA website (www.lcwma.org) under the JOIN tab. If you do not have internet access, please contact LCWMA chairman, Joel Wagner, at 361-798-6506 or by email at lavacacountywma@gmail.com

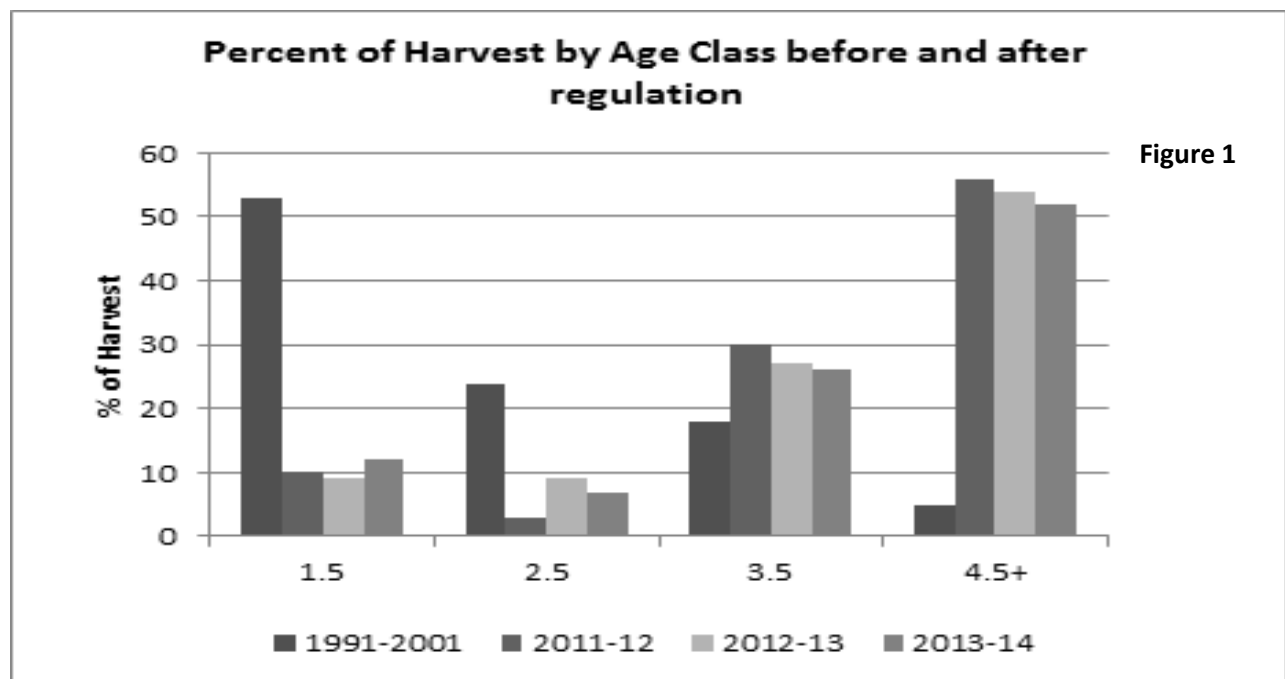
The Antler Restriction

By Doug Jobes, TPWD Wildlife Biologist

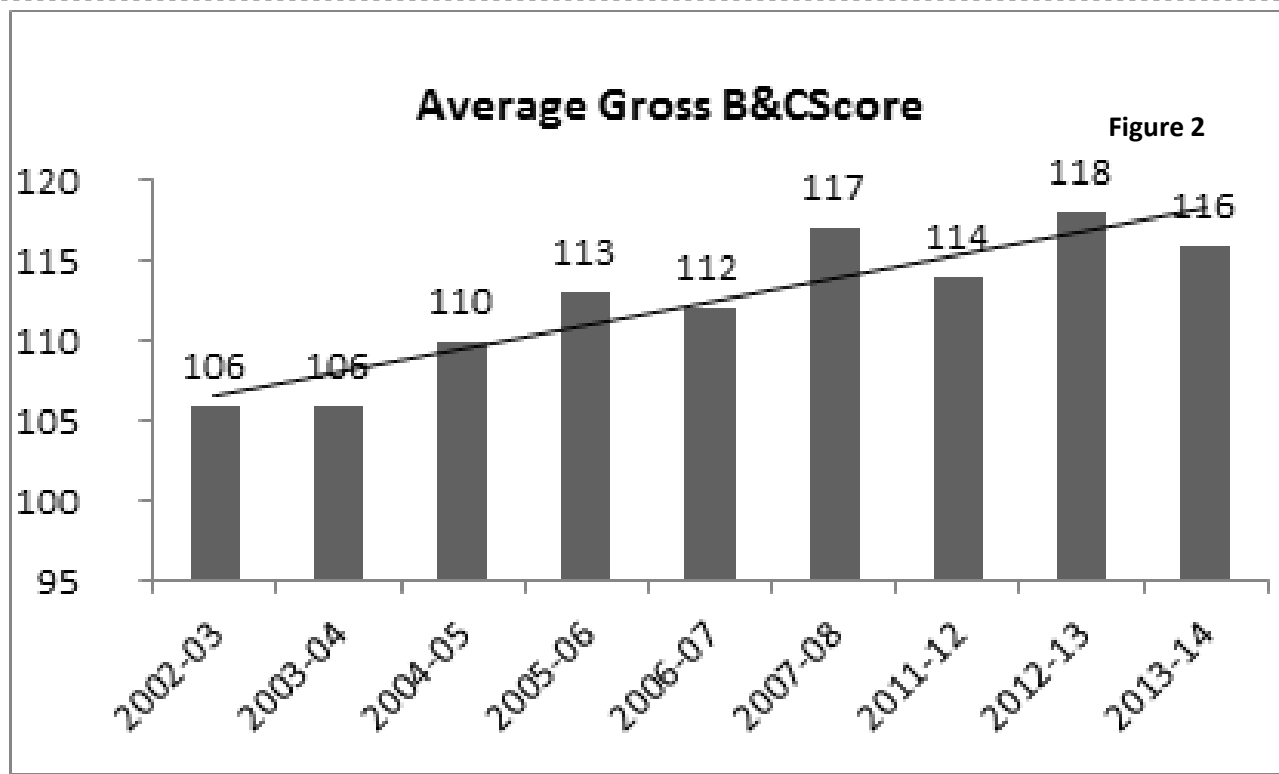
Over 14 years ago, Texas Parks and Wildlife proposed an experimental harvest restriction in Lavaca County on white-tailed bucks. The regulation included several other south-central Texas counties with the primary goal of increasing the age class of harvested bucks. Harvest information collected within these counties during 1991-2001 period indicated that around 80 percent of the bucks harvested were comprised of 1.5 - 2.5 year old bucks. This evidence supported the idea of a regulation to protect younger bucks, so with the support of the local wildlife management associations, the 13 inch inside spread antler rule was implemented.

The 2014-15 hunting season completed the 13th year of the antler regulation, and along with 5 other counties Lavaca County has been under the restriction longer than any other area in Texas. From day one, age structure of the harvest and antler quality has been monitored; from collecting check station data since 2002 as well as the annual Texas Big Game Survey (TBGS) we have observed several positive outcomes. In addition to the information that is gathered from voluntary check-stations, office visits, and hunting camps there is also a great amount of information gathered about Lavaca County bucks by the annual KC Big Buck Contest. Information that is specifically useful includes antler measurements such as inside spread and ages. Although this data is specifically taken from the “top” deer of the county it does provide useful information and should be used with other data for the purpose of monitoring.

The first thing I’d like to discuss is the age structure of the harvest. As you can see (figure 1) the age structure has steadily improved since the implementation of the regulation. During the 2013-14 season, 52% of the bucks brought to check stations were 4.5 years and older. Conversely, the percentage of immature bucks being harvested has decreased significantly since the antler regulation went into effect. With spike antlered deer making up the majority of the bucks harvested in the 1.5 age class.

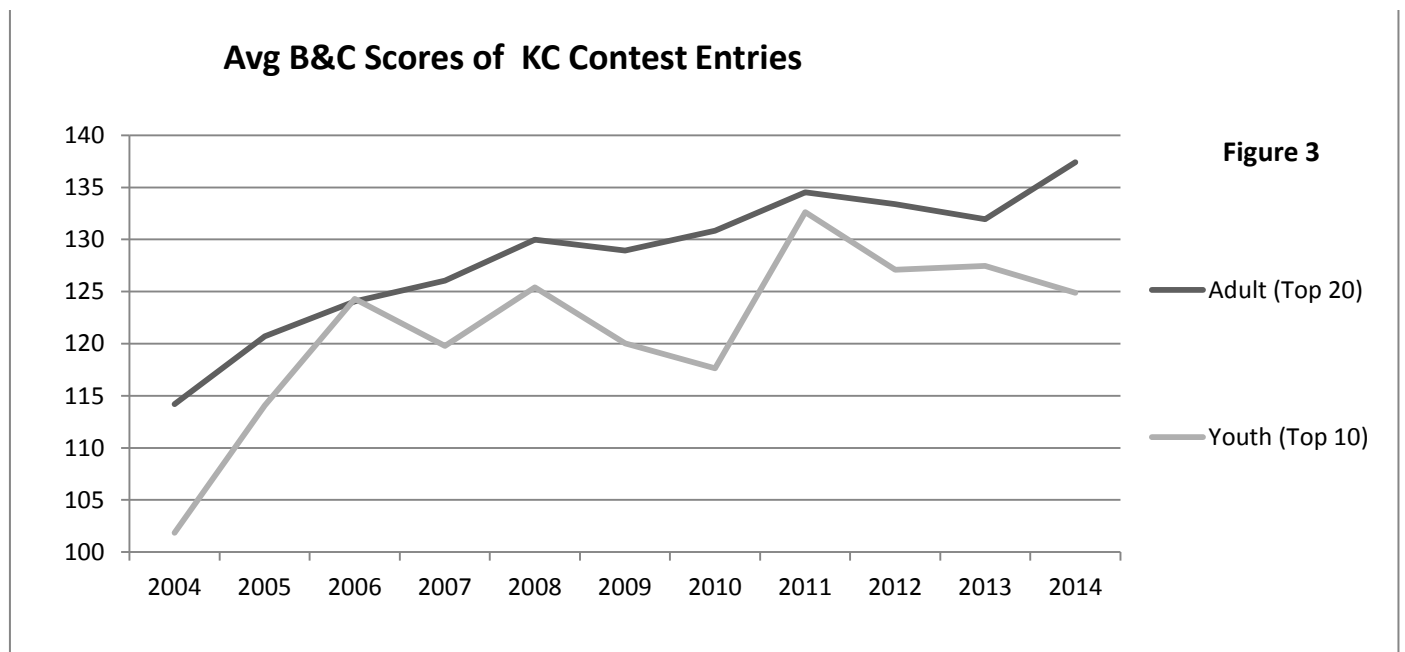


Another encouraging result is that Gross Boone and Crocket (B&C) Scores (figure 2) have trended upwards since the beginning of the restriction with the 2013-14 season average being 116 B&C. Similarly, results of the Lavaca County Buck contest show tremendous gains in B&C scores over the past 10 years (figure 3). Average B&C scores from the top 20 deer each year since 2004 shows an average increase from around 114 to 137 B&C.

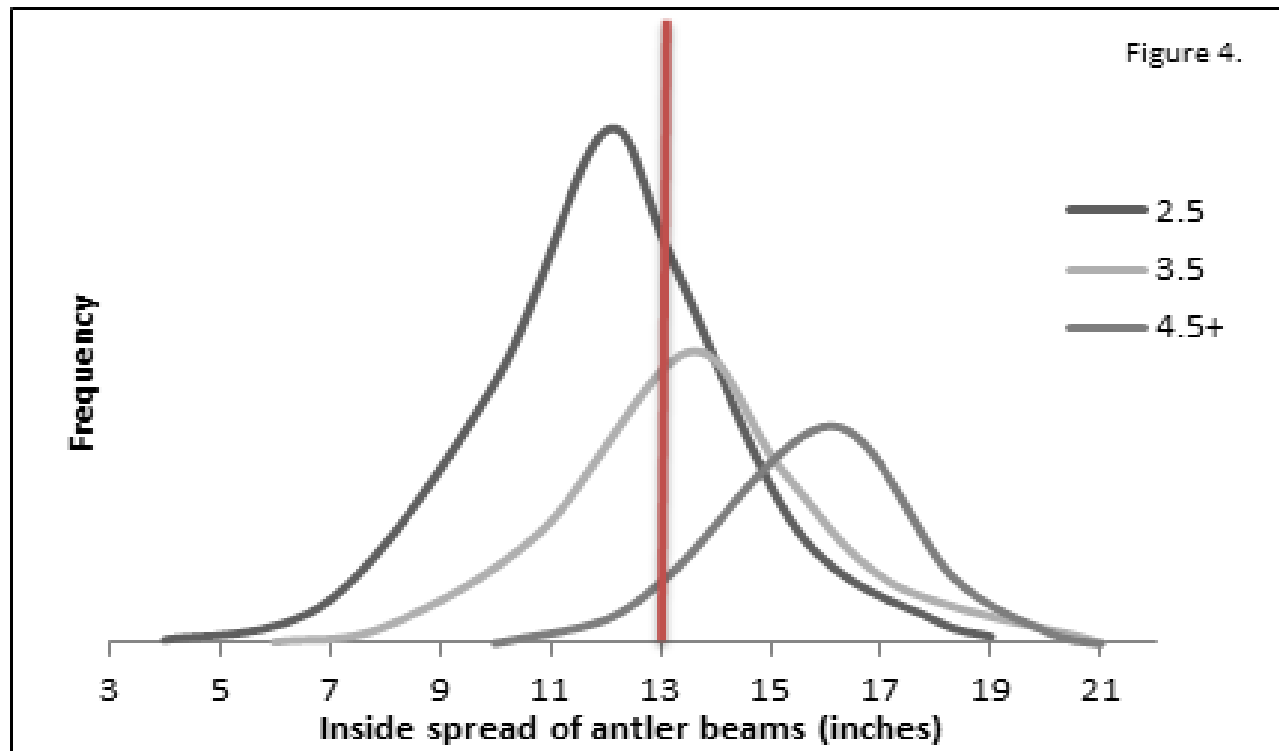


This trend is encouraging because we know that antler characteristics as indexed by B&C scores are correlated with age. So, it appears from this data as well that hunters are selectively harvesting bucks in the older age classes and allowing smaller and younger age class deer to grow.

The support for this program along with the support of the county wildlife management associations has proven to be a huge success. Just ask anyone who has been hunting in any of the antler restriction counties for a while. Nevertheless, with any program geared toward harvest restrictions there will always be some critics. The program is mentioned by some to be unintentionally promoting inferior bucks. That is to say there are bucks that will never meet the 13 inch rule and that will pass on their inferior genetics to offspring and will overtime exacerbate the problem. So, what I'd like to do is briefly describe the benefits and drawbacks of the antler restriction and hopefully help everyone understand that we have to take the good with the bad.



To start I'll explain how antler measurements are distributed throughout the buck population within an area. Antler characteristics such as inside spread closely follow what is referred to as a bell-shaped curve or a normal distribution. All this means is that the majority of a given populations inside spread measurement will be distributed normally around the mean or average. When these numbers are graphed on an x and y axis it appears as a bell-shape curve. An interesting fact is that this is true for all antler measurements and also across all age classes (Figure 4).



The example in figure 4 shows the distribution of inside spread and how it relates to the selective harvest strategy of inside spread. This was implemented to help shape the distribution of spread measurements at maturity. All this means is that the majority of the buck population at ages 3.5 and 4.5+ will meet or exceed the selected 13in criteria. It is not to say that there are no bucks that will never be legal. To the contrary, there will be some bucks according to the bell-shaped curve that will not meet the restriction. This is clearly depicted by looking to the left of the red 13in bar in figure 4. The same can be said for the 4.5+ age classes. The most important thing to notice is that the peak of the curve for the 4.5+ year old bucks is to the right of the redline which means the majority of the bucks with this data set do indeed meet the restriction. Now, there is one more downside to the restriction that needs to be explained and is clearly shown in figure 4 as well. If you'll notice the darkest line represents the distribution of spread for the 2.5 yr old age class. To the right of the red 13in bar is where these young bucks are available for harvest. This is probably the most significant downside of the restriction because these deer can be and often times are taken by hunters. This is why it is so important that members of the LCWMA try their best to promote among themselves and their neighbors the harvest of mature bucks only so that they can all get a shot at larger more mature bucks. The take home message here is that with this antler restriction there are deer that won't be legal. That is a simple truth, but we must consider what it is we are trying to accomplish with the antler restriction. If the hunters of the county feel that the 13 inch rule has helped the buck herd and feel that they are satisfied with the progress that has been made then we will need to stay the course and continue to monitor.

Points on plants by Joel Wagner, wildlife ecologist and LCWMA chairman



Giant reed in flower

Giant reed (*Arundo donax*), is an aggressive, exotic invader often found in monocultural stands in riparian areas (adjacent to a waterway). Referred to by some as giant cane, that common name belongs to a strikingly similar, though, shorter-statured cousin *Arundinaria gigantea*, a species native to Texas, and also found primarily in riparian areas. It is because of common misconceptions in identifying plants by common names that most naturalists refer to plants by their scientific names. Thus, most scientists refer to giant reed by its scientific name, or simply by its genus name, *Arundo*.

Giant reed is believed to have been introduced into the United States in the early-mid 1800's near Los Angeles, California. Brought in to provide erosion control along irrigation canals it quickly escaped cultivation, and spread like wildfire across the country's riparian areas. Into the 1950's giant reed was still planted across the U.S. as means of providing natural erosion control where nothing else seemed to grow. Though it produces millions of seeds, studies have shown that in the United States *Arundo donax* is purely vegetative in its reproduction. Thus, the seeds, produced are sterile, and it only reproduces by division of plant material, or translocation by water, animals or man.



Close-up of giant reed leaves

If allowed to mature and form dense stands, giant reed can be very difficult, and costly to eradicate. There are a couple of viable methods to tackle stands of giant reed, but a combination of methods gives the best control. In numerous studies, livestock grazing has been shown to reduce the abundance of giant reed, however, since it is not very palatable to cattle the plant is often eaten only when other more preferred forages have been exhausted. That said, I can't count the number of times someone has told me that grazing cattle can get rid of giant reed. Truth be known, if you are using cattle to successfully eliminate giant reed, then you are overgrazing. Properly stocked and rotated cattle should not be successful in eradicating giant reed. The rest inherent in a rotational grazing system allows giant reed to recover from a grazing bout. Thus, proper grazing can actually enhance giant reed growth by encouraging new growth from grazed shoots.

Herbicides are the most effective method to eliminate giant reed. However, chemical control of giant reed is by no means an easy, quick, or cheap endeavor. On my property in northwest Lavaca County I have been at battle with giant reed for several years. Over the years I have experienced the greatest success using a split treatment (spring and fall) approach to eliminate giant reed. The drought of the past several years, though, has dramatically hampered my efforts as herbicides are much less effective on drought-stressed plants. In this article I will only discuss the most widely used method of chemical control for giant reed, a late-summer/early fall application of glyphosate. On my property I have such a large area to treat (e.g., 10-15 acres) that I have also employed spring applications of two other herbicides, imazamox and imazapyr. The use of these 2 herbicides is a lot more complicated, thus I have chosen to exclude them from this article. The springtime chemicals are also 3-5 times more expensive than glyphosate. If you have a large area of giant reed that you would like to start a spring treatment program on give me a call, and I would be happy to help you explore your options.



A severe infestation of giant reed (dormant) in a riparian area

Numerous research studies have concluded that the most effective chemical treatment for eliminating giant reed is a post-flowering application of a 3-5% solution (e.g., 3-5 gals/100 gals water) of glyphosate, along with methylated seed oil or crop oil concentrate at 1% of volume. This treatment is dramatically less virulent at other times of the year and should only be employed post-flowering, but before dormancy sets in. In Lavaca County, this time period usually occurs in late August to mid-September. Glyphosate applications in the late summer/early fall are much more lethal on *Arundo donax*, due to the fact that after it flowers the plant is actively transporting nutrients to the roots, to keep the plant alive through the dormancy of winter. If the plants are in good health at the time of treatment, a late summer/early fall application of glyphosate should result in $\geq 80\%$ mortality of giant reed. Some research studies peg the mortality rate at $>90\%$, but I have yet to experience that level of mortality. Treatment with a 3-5% solution of glyphosate will cost approximately \$50-90/acre depending on the solution concentration and the brand of glyphosate used.

Before the herbicide application, the first step in eliminating giant reed should be to remove the old growth. Mowing is the most effective method of removing old growth, but isn't always possible due to terrain. Whatever tool one has to use, whether it be a tractor and shredder, handheld brushcutter, or machete, the objective is to remove the old growth and spur fresh, new growth. Timing of the removal is crucial to allow a sufficient amount of regrowth before the herbicide is applied. In Lavaca County, old growth removal should usually occur in mid-July.

If moisture is present, giant reed will rapidly resprout from the roots. Allow the new growth to flower for at least 1 week, and then apply the herbicide. The new growth should reach about 2-3 feet before applying herbicide. If the growth gets much greater than 3 feet tall all is not lost, efficient herbicide application is just more difficult using a high-volume foliar application, and a greater volume of herbicide is required. If abundant rains provide copious regrowth do not mow the new growth again. Allow the plants to flower, and make the herbicide application, but lean more toward the 5% solution rate, and be sure to thoroughly wet the plants. A 3-5% solution of glyphosate is deadly to many plants, if it contacts the leaves. One must be extremely cautious to avoid getting the herbicide solution on desirable vegetation by direct contact or drift. Always read and follow the manufacturer's label instructions before making a herbicide application.

Do not mow the treated area until after the first hard freeze ($<30^{\circ}\text{F}$), preferably until the next spring. The same process can be repeated the following fall, or if only isolated spots of giant reed arise, individual plants can be clipped at the ground, and the stump sprayed with glyphosate concentrate. This method is extremely expensive and tedious, and is only recommended for isolated occurrences, or very small initial stands. The cut-stump method has highly variable success rates, and like the high-volume foliar application is most effective in the fall.

All in all, eliminating giant reed requires proper site preparation, timely delivery of herbicide, and diligence in retreatment. Though costly, the removal of giant reed can allow native plant species, that are more beneficial for wildlife and livestock, to grow and thrive with less competition for resources.



Giant reed 1 month after treatment with .75% v/v of imazapyr and 2% v/v of glyphosate

LCWMA
P.O. Box 524
Hallettsville, TX 77964

LCWMA Board of Directors

Chairman: Joel Wagner (Western Lavaca County)

Vice-chairman: Jason Johnson (West Sandy Creek)

Secretary: Tom Grahmann (At-large)

Treasurer: Sam Bordovsky (South Central Lavaca County)

Member: Jason Kubeczka (At-large)

Member: Wayne Rother (Vienna)

Member: William "Rusty" Wallace (Honey Creek)

Member: Mike Hoelscher (At-large)

Member: David Pohl (At-large)

Membership questions?

Call the Chairman at

361-798-6506 or

Email

lavacacountywma@gmail.com