Antler Rattling 101

By Mickey W. Hellickson, Ph.D.

I caught movement out of the left corner of my eye just as I pulled the shed antlers apart. I slowly turned for a better look and noticed a mature nine point, with tall tines and exceptionally heavy main beams, trotting my direction. He moved to within 30 yards, stopped and looked to his left where a second buck was also responding to my rattling. This middle-aged eight point buck froze in his tracks when he noticed the first buck.

The two bucks began side-stepping toward each other with hair on end. When neither buck backed down, each buck laid his ears back. The bucks continued to side-step in half circles, each with head lowered and antlers extended. The larger buck finally called the smaller buck's bluff and charged. The smaller buck stood his ground for a few seconds as the two bucks locked antlers. Quickly though, the larger buck proved his dominance and the smaller buck broke free and ran away.

Although one of the bucks was mature and within bow range, I was not hunting. Instead, I was conducting research toward my doctorate degree. My first question was "what type of rattling sequence attracts the highest number of bucks?" Because no research had ever been conducted on antler rattling, I relied on rattling articles I had read in popular hunting magazines to develop four different rattling sequences. Volume and length of the rattling were varied among each of the four sequences.

I conducted the rattling research at the Welder Wildlife Foundation Refuge, north of Sinton, Texas. The four rattling sequences were randomly tested during the pre-rut, rut peak, and post-rut over a three-year period. Each sequence began with a 10-minute segment that included one or three minutes of actual rattling followed by nine or seven minutes of silence. This was then repeated two more times over the next 20 minutes.

The four sequences were called "short and quiet" (SQ), "short and loud" (SL), "long and quiet" (LQ), and "long and loud" (LL). Both short sequences included three 10-minute segments with each containing one minute of rattling followed by nine minutes of silence (total of three minutes of rattling over the 30-minute period). Both long sequences also included three 10-minute segments, but each segment now included

three minutes of rattling followed by seven minutes of silence (nine minutes of rattling over the 30-minute period).

During the two "quiet" sequences, both elbows were held against the body to avoid loud antler clashes. During both "loud" sequences, the antlers were clashed together as loudly as possible. We also broke nearby branches, rubbed bark, and scrapped the ground trying to make as much "natural" noise as possible.

Each rattling sequence was tested at one of 17 observation stands and included two people. One person watched deer respond to the rattling from the top of the stand, recorded data, and videotaped each buck with a camera. The second person performed the rattling upwind of the stand in the nearest clump of brush. Whenever a buck responded to the rattling, we estimated its age and gross Boone and Crockett Club score "on-the-hoof."

By the conclusion of the study, we had rattled 171 different times with 60 sequences performed during pre-rut, 60 during rut peak, and 51 during post-rut. The periods of the rut were determined based on necropsy records of over 900 does killed on the refuge. A total of 111 bucks responded to our rattling.

The two loud sequences (SL & LL) were performed 85 times and attracted 81 bucks, nearly three times as many bucks as the two quiet sequences (SQ & LQ) which were performed 86 times and attracted only 30 bucks. The response rates were 95% for the loud sequences and 35% for the quiet sequences.

There was no difference among the response rates of the four sequences when they were combined according to the length of the rattling. The short sequences (SQ & SL) attracted an equal ratio of bucks when compared to the long sequences (LQ & LL). The short sequences were performed 88 times and attracted 57 bucks. The long sequences were performed 83 times and attracted 54 bucks.

During the pre-rut, the LL sequence attracted the highest ratio of bucks. During the rut peak, the SL sequence attracted the highest ratio of bucks. And during post-rut, the LQ sequence attracted the highest ratio of bucks. The highest number of buck responses occurred during the first 10 minute segment with the lowest response rates during the third segment.

During the rut peak, 65 bucks responded to 60 different sequences for a response rate of 108%. During post-rut, 28 bucks responded to 51 sequences for a response rate of 55%. And during pre-rut, only 18 bucks responded to 60 sequences for a response rate of 30%.

The highest response from mature bucks occurred during the post-rut when an equal number of middle-aged and mature bucks responded to our rattling. The highest number of bucks responded during morning rattling sequences. Sixty of the 111 bucks that responded came in during the 64 sequences performed between 7:30 a.m. and

10:30 a.m. Thirty-three bucks responded during the 62 sequences performed in the afternoon. Only 18 bucks responded during the 45 sequences performed during midday. Sixty-seven of the 111 bucks (60%) that responded to our rattling were first sighted downwind of our stand.

Hopefully you can use the results of our study to rattle in the next buck you harvest!

Table 1. Number and percentage of different-aged bucks responding to four antler rattling sequences at the Welder Wildlife Foundation Refuge during different times of the rut (number of sessions performed in parentheses in the last column).

All Periods of the Breeding Season Combined			
Estimated Age Class			
Sequence	**1.5 - 2.5**	**3.5 - 4.5**	**5.5+**	**Total**
SQ	1	7	4	12 (43) 25%
SL	18	18	9	45 (45) 100%
LQ	4	8	6	18 (43) 42%
LL	14	13	9	36 (40) 90%
Total	37 (33%)	46 (41%)	28 (25%)	111 (171) 65%

Table 2. Number and percentage of bucks responding, according to time of day during different times of the rut, to the four different antler rattling sequences (number of sessions performed in parentheses).

Time of Day	**Pre-Rut**	**Rut**	**Post-Rut**	**Total**
7:30am – 10:30am	15 (27) 56%	29 (21) 38%	16 (16) 100%	60 (64) 94%
10:30am – 1:30pm	0 (12) 0%	14 (19) 74%	4 (14) 29%	18 (45) 40%
1:30pm – 4:30pm	3 (20) 15%	22 (20) 110%	8 (22) 36%	33 (62) 53%
Total	18 (60) 30%	65 (60) 108%	28 (51) 55%	111 (171) 65%