## What is the Most Found Ball in Golf? Richard Wolkowski, Ph.D. Univ. of Wisconsin, Extension Soil Scientist, Emeritus © 2020

While it's time for Wisconsinites to begin playing golf, the start of the season has been delayed by Governor Evers' "Safer at Home" order to address the COVID-19 crisis. Who could ever imagine a world where golf is considered non-essential? While it is not allowable to golf, I can exploit the convenience of living on the Baraboo Country Club (BCC) and take my golden retrievers for walks while looking for golf balls. A major feature of this course are the windings of Draper Creek, an ephemeral stream that has its source in the bluffs above Devil's Lake and comes into play on nine of the eighteen holes. There are also several un-mowed natural areas and these too become destinations for wayward golf balls. My foursome has jokingly debated the question of the "Most Found Ball in Golf" and had attributed that honor to the lowly Top Flite, or perhaps more recently the cadre of Nike golf balls being played due to Tiger's popularity. As an alternative to golf I decided to apply my scientific skills to a study that would confirm the most commonly lost, and therefore found, golf ball.

The literature is deficient with respect to metrics regarding the relative rankings of found golf balls. While every golfer occasionally dips a ball from the pond or takes a meandering walk from tee to green through the woods none have quantified their findings. Thus their observations are simply anecdotal and unreliable for determining the golf ball that is most commonly found. Golf balls are lost and then found in large quantities. The proof is that these can be purchased on-line through various websites at a fraction of the cost of brand new golf balls. This author is a DIY type and can confirm that in 60 years of golfing he has never purchased a new golf ball, having learned the art of golf ball hunting from his father at an early age.

The methods of my research were straight forward. I allowed myself 75 – 120 minutes for each of three search sorties once the snow had melted. Golf balls were located by normal vision, corrected by my glasses only. No use of any remote sensor, urethane seeking device, or the fetching capability of a golden retriever was used. Simply a golf ball was seen laying on the ground and it was placed in a plastic shopping bag without discrimination or bias. It should be recognized that damaged, unplayable balls were left on the landscape in a difficult position to attract an unsuspecting golf ball hunting competitors. Following collection balls were washed and sorted by brand and model. Data were summarized for three sampling dates (8 March 2020, 26 March 2020, and 5 April 2020). An analysis of variance was conducted over sampling dates to determine if there were significant differences between the various brands recovered.

The relative number of found golf balls from the three different sorties as organized by brand is shown in Figure 1. A total of 416 golf balls were recovered over the three searches. These data clearly destroy the current accepted theory that either Top Flite or Nike hold the honor of being the "Most Found Ball in Golf". The data clearly show Titleist owns this distinction, out-pacing its nearest competitor Callaway by nearly two to one (138 vs. 70, respectively). Third place went to the TaylorMade (30), followed by Top Flite (27) and Other (27). The Other category represents odd brands of golf balls for which no more than three total were found. Pinnacle and Nike came in at 25 and 23, respectively. Note that the ranking trend of the found golf balls was

similar across all sampling dates, which shows balls of any brand can be lost anywhere on the golf course. Assuming golfers show no prejudice toward which brand of golf ball they lose in the penalty areas these data likely mirror the relative ratio of brands being played at the BCC. The BCC is a semi-private club open to daily green fee play. A prestigious private country club, catering to a more exclusive membership, would likely have a somewhat different distribution of found balls, likely skewed even more toward the top brands.

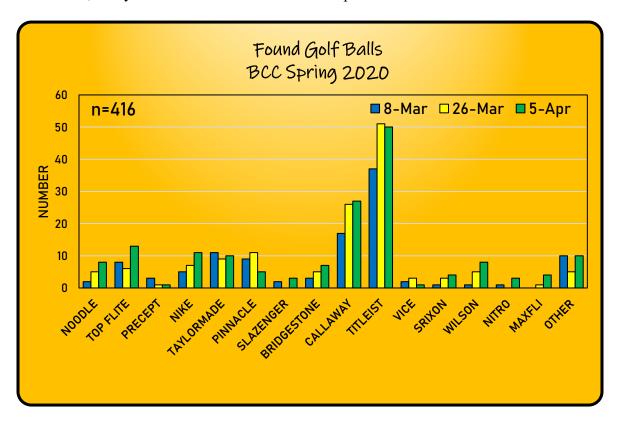


Figure 1. Number of found golf balls sorted by brand over three dates of collection, Baraboo Country Club, 2020.

As we are finding out with current events there is an emphasis by scientifically trained spokespeople that appropriate research is needed to confirm observations, and that decisions based on anecdotal evidence or hearsay can produce unreliable results. Therefore, while it appears that Titleist is by far the most found ball in golf, only a controlled study and statistical analysis will prove that observation to be fact. These data were subjected to an analysis of variance and mean separation analysis to determine if the visual differences were in fact statistically significant.

Figure 2 shows the statistical output for the range (grey bar), mean (diamond symbol), and median (horizontal line) for the 15 brands of golf balls for which four or more golf balls were found, plus the "Other" category. The analysis showed a highly significant response at the p=0.0001 level meaning that if this study is repeated it is extremely likely that a similar observation for the relative number of found balls would be observed. The Titleist, as shown by this research, appears to be the "Most Found Ball in Golf" at the BCC.

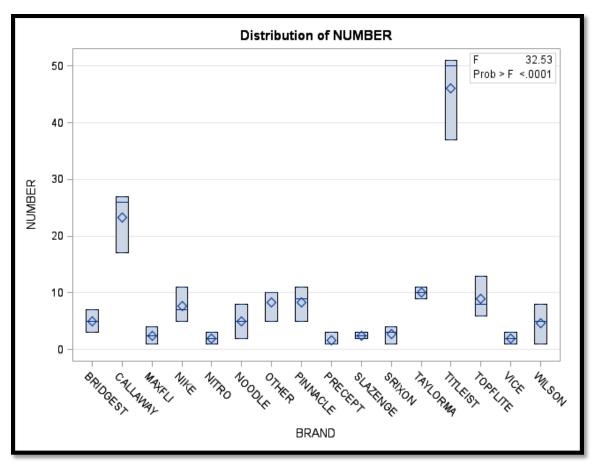


Figure 2. Range, mean, and median of found golf balls sorted by brand over three dates of collection, Baraboo Country Club, 2020.

It may be of interest to Club Managers to determine if there are significant difference in the ranking of the various brands of found golf balls so that informed decisions can be made for supplying the Pro Shop. A means separation routine was used to determine whether the number of the found golf balls between brands is statistically significant. Table 1 shows the significance of the mean comparison for various brands of found golf balls at the BCC for the spring of 2020 where a minimum of 15 balls of a brand was recovered. Means separated by a different letter are statistically significant. These data show that Titleist was found in significantly greater numbers than any other brand. Similarly Callaway was found in significantly greater numbers than all other brands except Titleist. The number of remaining brands were not found in statistically different numbers. The brands identified by the letter C were found in significantly greater numbers than all remaining brands, except Wilson for which 14 balls were found.

Acushnet, the manufacturer of Titleist, invests an untold amount of resources to promote the various models within their brand. Figure 3 shows the distribution of the Titleist balls found in the three search sorties. Over the three sorties a total of 416 golf balls were found; 138 or 33% were Titleist. The Pro V1 was the most common Titleist found (43), representing 31% of the total. The next most common model was the Pro V1x (28), which was 20% of the total. Other models such as the Velocity, Tour Soft, and DT Trusoft collectively made up fewer golf balls

than the Pro V1. Several older, discontinued models were found and one Titleist GranZ, a ball designed for the average Japanese golfer and apparently not available in the US, was recovered.

This study clearly shows that the "Most Found Ball in Golf" is the Titleist, hands down. Remarkably over 50% of the found Titleists are from the Pro V series, which is also the most expensive Titleist. It does cause one to question why the average golfers that populate the BCC play and lose one of the most expensive golf balls available. That is likely a question for social scientists and I decline to attempt to describe the psyche of Wisconsin golfers.

Table 1. Mean comparison showing the number of found golf balls for a minimum of 15 golf balls found. Means followed by the same letter are not significant (p=0.05).

Brand	Total Number	Separation
Titleist	138	A
Callaway	70	В
TaylorMade	30	С
Top Flight	27	С
Other	27	C
Pinnacle	25	С
Nike	23	C
Bridgestone	15	C
Noodle	15	C

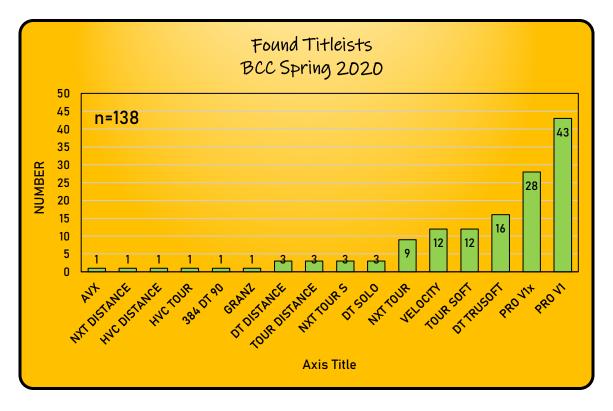


Figure 3. Number of found Titleist golf balls totaled over three dates of collection, Baraboo Country Club, 2020.