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RUTGERS

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New York Times Op-Ed editor:

I submit the below op-ed for your consideration.

The following news reports are related.

NBC New York (Oct. 11), "NJ DEP Accused of Cooking Numbers for Bear Hunt"

(<http://www.nbcnewyork.com/news/local-beat/NJ-DEP--104747439.html>);

(<http://www.youtube.com/watch?v=UZ2hvLwvjjE>)

TIME Newsfeed (Oct. 12), "Did New Jersey Fudge Numbers So It Could Hunt Bears?"

(<http://newsfeed.time.com/2010/10/12/did-new-jersey-fudge-numbers-so-it-could-hunt-bears/>)

The Home News Tribune (Nov. 12), "Editorial: Facts first, please, before we start killing bears,"

(<http://eastbrunswick.injersey.com/2010/11/12/editorial-facts-first-please-before-we-start-killing-bears/>)

The Star Ledger (Dec. 6), "Stop the bear hunt,"

(http://blog.nj.com/njv_guest_blog/2010/12/stop_the_bear_hunt.html).

Suburban (Dec. 23), "Sayreville opposes future New Jersey bear hunts,"

(http://suburban.gmnews.com/news/2010-12-23/Front_Page/Sayreville_opposes_future_New_Jersey_bear_hunts.html)

In addition, the *Daily Record*, *Bergen Record*, [newjerseynewsroom.com](http://www.newjerseynewsroom.com), WNBC, WGHT, WCTC, New Jersey 101.5, WNYC, News 12 New Jersey, FiOS1 and WCBS 880 radio have reported on the controversy.

NEW JERSEY'S BLACK BEARS – HUNT OR GARBAGE CONTROL?

Conflicts arise between many homeowners and black bears in northwestern New Jersey due to black bear's strong inclination toward homeowners' garbage (as well as lesser attractants such as birdfeeders). Garbage to a black bear is like ice cream to a child. The Department of Environmental Protection Division of Fish and Wildlife (DFW) says that hunting is the best option to reduce these conflicts. Bear advocates maintain that garbage control (using bear-resistant trash containers, educating the public, enforcing ordinances regarding feeding the bears, etc.) is the best option. As a scientist, I researched the effect of these two approaches.

In 2005 I evaluated data from three national parks, three local communities, five states and one Canadian province⁽¹⁾. At every site involving the hunting approach, the complaints *increased*, while at every site involving the garbage control approach, the complaints *decreased*. So the question was answered. My research very clearly demonstrated that hunts do not work in reducing the black bear-human complaints, but garbage control does.

Now let's focus on New Jersey, which reported some data well out of line with the rest of the country⁽²⁾.

From 1995 to 1999, while there was no garbage control program in place, complaints in New Jersey increased. This is consistent with my 2005 study results. In 1999 the garbage control program was initiated and the upward trend in complaints reversed. The data from 1999 to 2007 show a continuing statistically significant (99% confidence level) decreasing trend in complaints. This also is consistent with the 2005 study results. However, the complaints reportedly surged from 900 in 2007 to 1869 in 2008, more than doubling, and were maintained at that high level through 2009. This is *not* consistent with the 2005 study. This is an anomaly.

Despite the knowledge that hunting does not reduce black bear incidents, but garbage control does, DEP Commissioner Bob Martin reacted to this reported surge and approved the New Jersey Fish and Game Council's 2010 Comprehensive Black Bear Management Policy, which includes a 2010 hunt. This hunt is scheduled to begin on December 6th.

I could have stopped right here; the surge in New Jersey is a moot point. Surge, or no surge, only garbage control will bring down the complaint numbers, not a hunt. However, since this fact didn't seem to have registered in Trenton, I decided to investigate the surge. Perhaps understanding the cause of the surge would have some value.

Two possible explanations for the surge in complaints were a surge in bear population and a dearth in bears' natural food supply. My research, however, demonstrated that there was no surge in the bear population, and found no evidence of a dearth in bears' natural food supply. Another possible explanation for the surge in complaints was an error or errors in the DFW's data collection or interpretation. Therefore, I collected all complaint records (approximately 4700) from 2007 (a low in complaints) and 2009 (a high in complaints). Analysis revealed that in 2007 the DFW was the source of virtually all of the complaint records, and there were none collected from the New Jersey Department of Environmental Protection Communication Center (CC). However, in 2009, although the DFW collected many complaint records, the CC was the major source of the complaint records. That is, the DFW used essentially one government agency to collect and interpret data from 1995 to 2007, but changed to two government agencies to collect and interpret data in 2008 and 2009. This comparison is scientifically invalid. The 2008 and 2009 complaint totals are flawed.

Let me provide a hypothetical analogy. Let's say that the state of New Jersey desired to study its annual fruit production beginning in 1999. The plan was to monitor apple production as representative of the fruit production. The data showed a decrease in apple production from 1999 to 2009. However, in 2008 and 2009 New Jersey decided to count oranges produced also, and then combined the apple and orange production for these two years. The state agency then reported a surge in fruit production in 2008 and 2009. Changing the procedure in this manner breaches acceptable scientific protocol.

In fact when only the DFW data were compared, the number of bear complaints went from approximately 1700 in 1999, when the garbage control program began, to approximately 700 in 2009, *a 60% downward trend significant at the 99.8% confidence level.*

I could have stopped right here. However, I didn't stop at this point because there was additional interesting information to be gleaned from the data.

I began the analysis anew, ignoring the CC contribution. I uncovered 3000% more duplications from citizens and yet additional duplications from police departments in 2009, as compared to the reference year 2007, and numerous miscategorizations of type, far more in 2009 than in 2007. I adjusted the data to correct for these errors. This again provided *a statistically significant decrease in complaints, not an increase.*

In summary, even if the number of bear complaints in New Jersey increased from 1999 to 2009, hunting would be the wrong response, because it has been proven that hunting does not reduce bear complaints. However, a hunt is a moot point since the number of bear complaints has significantly decreased from 1999 to 2009. If any forward

action is to be planned, it should be with the nonlethal program (garbage control et al.). This program should be enhanced to reduce the complaints even faster.

(1) Correlation of reduction in nuisance black bear complaints with implementation of (a) a hunt vs. (b) a non-violent program, (www.savenjbears.com/press_files/DrTavss.pdf) (2005)

(2) An investigation into the reported surge of serious bear incidents in New Jersey from 2007 to 2009, www.aplnj.org/EdTavss2010Study.pdf (2010)

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