

LITTER ALONG A SECTION OF MICHAEL BOULEVARD

Bonnie Davis, Department of Earth Sciences, University of South Alabama, Mobile, AL 36688. Email: bad302@jaguar1.usouthal.edu

This study is to determine what kind of litter or trash is found on the banks of Bolton Branch, along Michael Boulevard. Trash was collected from an approximately 500-foot section of both sides of the canal. There are no commercial buildings; only houses on one side. Most litter was found on the side with the road; therefore, the litter most likely came from cars as people threw their trash out of a window. The most common litter was plastic bottles, styrofoam products, and food containers or wrappers.

Keywords: Michael Boulevard, Mobile, litter.

Introduction

Litter is a growing problem in cities. People litter and eventually that litter or trash ends up in the river. Overall, litter and trash are considered as the number one

problem affecting clean water within the state of Alabama. This litter can include household garbage, construction debris, or paper and debris left in a parking lot (ADEM, 2005). Litter degrades water quality by obstructing sunlight from bottom dwelling plants and animals, as well as “destroying the waters’ delicate chemical balance,” (Pounds, 2003). Consequently, this litter is washed down into

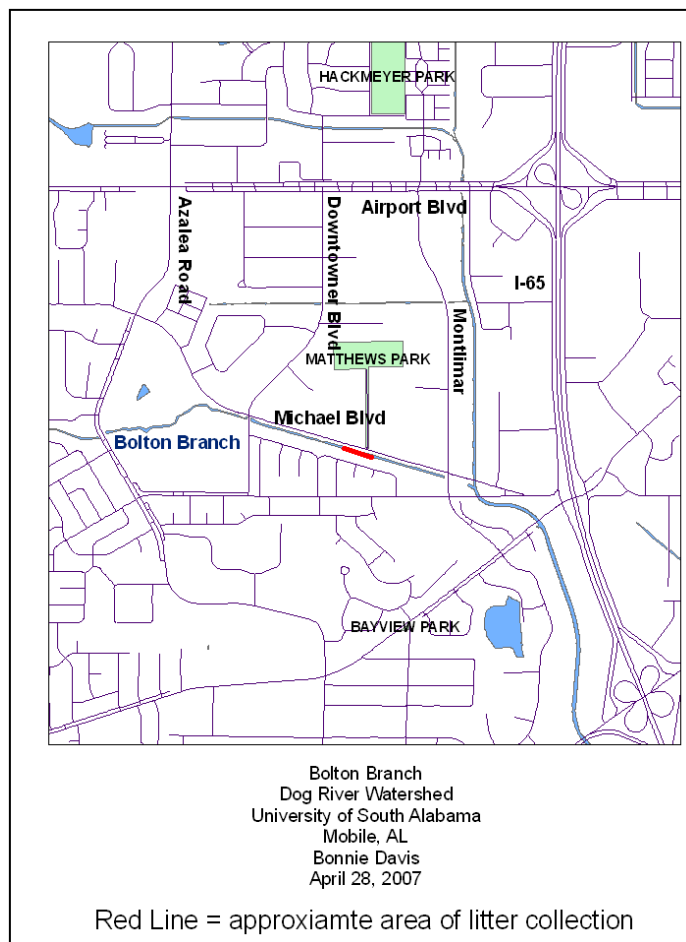


Figure 1 Map showing area of Bolton Branch where I did my trash collecting.

storm drains leading into streams and creeks, creating pollution. The proper disposal of litter in these areas of the watershed would accomplish an improvement in the water quality of the watershed as a whole (ADEM, 1995). While there are projects in effect to try to reduce litter and pollution such as the storm drain marker project and debris barriers, more needs to be done to inform citizens (DRCR, 2007). “Promoting public awareness of and involvement in rehabilitating urban streams and watersheds may foster a sense of place and community” (Platt, 2006). According to a Harris national poll, 94 percent of Americans believe that something should be done to curb pollution (Harper 2004).

One such place where it is obvious litter has washed up on the banks after ending up in the river is in the Bolton Branch (Figure 1). The section I am looking at is along Michael Boulevard and there are not any commercial buildings. Michael Boulevard is on one side of the canal and houses are on the other side.

Research Question

What kinds of trash can be found along the Michael Boulevard Canal and why is this? I am going to be looking at what kind of trash is found along a section of Michael Boulevard and try to determine why I think it is there. Is it there because of people throwing their trash out of their car window or is there another reason?

Methods:

My mother and I, using garbage bags and rubber gloves, picked up trash along the Bolton Branch along Michael Boulevard in front of Matthews Park. I counted 100 paces,

which is approximately 500 feet. We worked toward each other, picking up whatever litter we could between the guardrail along the road and the edge of the water. We did not pick up anything in the water. We also did not pick up anything on the other side of the guardrail because it would have been too dangerous with the cars coming down the road. We worked both sides of the canal then took the trash bags home to catalog their contents. We marked off everything into categories such as *bottles*, *paper*, *plastic*, *food containers*, and *other* for the things that were unidentifiable.

Results

I found that there were more items on the side of the canal where the road is than on the side of the canal where the houses are. I collected six trash bags of litter

(Figure 2), two of which were from the house side and four were from the road side of the canal.

The most numerous items were plastic bottles (27%), followed by Styrofoam cups (18%), then food containers or wrappers (14%). All

of the results are represented in



Figure 2 Six trash bags full of collected litter.

Figure 3. *Glass bottles*, *Styrofoam*, *plastic*, *cans*, *paper*, and *other* are also smaller, yet somewhat significant categories. Plastic bottles not only included commercial drink bottles but also things like sports bottles that were plastic. *Food containers* were

anything that held, contained, or touched food. Containers used for drinks like Capri Sun were included in the *food containers* category since they could not really be classified as bottles, cans, or cups. The *styrofoam* category consists of pieces of styrofoam that were big enough to pick up but not enough to determine what it was.

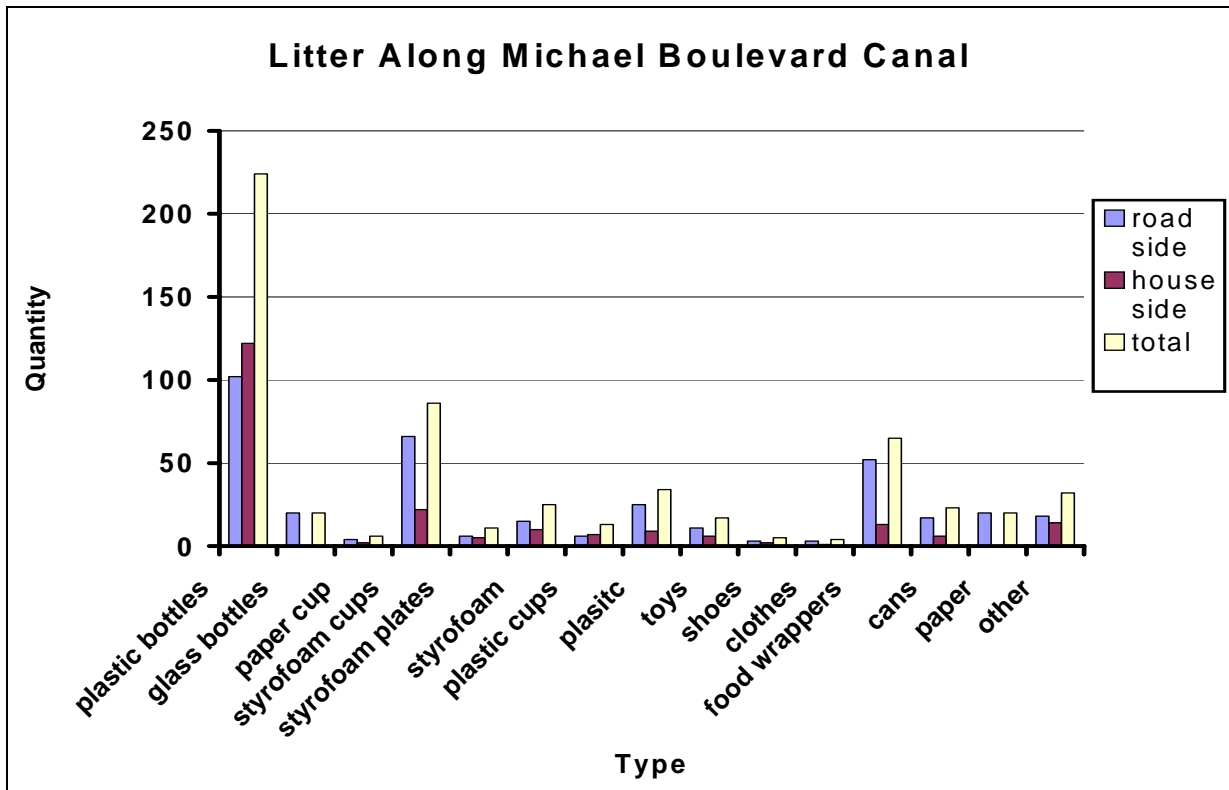


Figure 3 Graph showing type and quantity of collected litter.

Discussion and Conclusion:

The most common litter was plastic bottles, styrofoam products, and food containers or wrappers. “Food wrappers and beverage containers are the two items most often found along highways in Alabama” (Pals, 2001). These are all things that can easily be bought at a fast food restaurant or convenience store. Most of the trash were things that were more than likely thrown out the window of a car either along Michael Boulevard or from farther up stream and was washed down the canal when it rained.

There was a lot of vegetation, so when the water levels rose the vegetation could easily catch the trash and hold it there. Some of the trash had been there for a long time because it was either under plant growth or had plants growing through it. Some of the litter was so deteriorated, namely styrofoam, that when I tried to pick it up, it fell apart. In some cases, I was forced to leave it behind and it was not counted.

Some of the trash could have been from the houses. Things like the styrofoam cups and plates could easily have been from a barbecue or cookout. The toys and clothing could very easily have been from the houses as well. However, there wasn't as much trash found on this side so I believe more was from cars.

There is another factor to consider: the section I collected trash from was across from Matthews Park, however, there was a fairly long road leading to it. The food and drink items could have come from the park but I think it is more likely that they came from the road or were washed down from upstream. Judging by the vegetation I would say that about half or less of the trash was washed there by the water when water levels rose.

It is my belief that the trash came from what people throw out of their car windows. If people became more aware of how this trash ends up in their watershed, and how it affects water quality, they might be more willing to stop themselves. All it takes is putting a trashcan in one's car instead of casually throwing it out of the window.

Further research could be to see what kind of trash is collected there on a regular basis and to see if it changes with new environmental policies. Also to see how trash and certain kinds of trash affect the soil and vegetation could be something to look into.

Hopefully, people will become more educated about trash and litter and will make an effort to put an end to it.

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