

2017

The Status of Green Criminology in Victimology Research

Demarco S. Johnson
djohn162@emich.edu

Follow this and additional works at: <http://commons.emich.edu/mcnair>

Recommended Citation

Johnson, Demarco S. (2017) "The Status of Green Criminology in Victimology Research," *McNair Scholars Research Journal*: Vol. 10 : Iss. 1 , Article 8.
Available at: <http://commons.emich.edu/mcnair/vol10/iss1/8>

This Article is brought to you for free and open access by the McNair Scholars Program at DigitalCommons@EMU. It has been accepted for inclusion in McNair Scholars Research Journal by an authorized editor of DigitalCommons@EMU. For more information, please contact lib-ir@emich.edu.

THE STATUS OF GREEN CRIMINOLOGY IN VICTIMOLOGY RESEARCH

Demarco S. Johnson
Dr. Kimberly L. Barrett, and
Dr. Tricia McTague, Mentors

ABSTRACT

Every day, plants, animals, and ecosystems are subject to the dire consequences of anthropogenic environmental degradation. The damage caused by manufactured ecological destruction varies, and can be the result of ecological withdrawals (dangerous extraction of natural resources, such as fracking or deforestation), or ecological additions (dangerous introduction of environmental hazards into the environment, such as pollution). These practices result in millions of victims, and a small (but growing) group of criminologists has taken up the study of the victimization experiences associated with environmental crimes. Many of these criminologists identify as *green criminologists*, and in their works, argue that environmental crime victims, and research associated with environmental crime victim experience, remains on the periphery of mainstream criminology. This is a serious concern, as in order to (1) recognize the full scope and impact of environmental crime, (2) avoid victim blaming, and (3) generate a comprehensive victimology literature, criminologists must recognize environmental crime victims. This research explores the claims of green criminologists by exploring the representation of environmental crime victims in criminology's victimology research. Sources are examined for key themes, as well as information on the victim experience of those who have endured environmental crimes. Results, implications, and suggestions for future study will be presented and discussed, in order to draw conclusions about the standing of environmental crime victims in criminology's victimology research.

INTRODUCTION

Manufacturing facilities, global warming, and climate change damage ecosystems, resulting in a growing population of victims. The large number of victims calls for immediate attention by scholars to address the effects of environmental destruction. Recently, green criminologists have claimed that environmental crimes are poorly represented in criminological research, and this reflects the status of environmental victims in the literature of victimology (Hall, 2014; Jarrel & Ozymy, 2012). Jarrell and Ozymy (2012) state that the “vast majority of environmental crime victims will never be recognized or given the opportunity to speak about the consequences of their victimization, as environmental crimes will go undetected or will escape criminal prosecution” (p. 374).

This study will examine victimology literature to measure the representation of environmental victims in victimology research, with respect to green criminology. Background information on the seriousness of environmental crime will also be provided to encourage its further study. The literature review will explore the growth of the environmental justice movement in relation to the rights given to environmental victims under the Crime Victims’ Rights Act (Jarrell & Ozymy, 2012). The specific focus of this study is to examine whether previous claims about the underrepresentation of victims of environmental crime are accurate.

LITERATURE REVIEW

In the spring of 2010, four million containers of oil flowed into the Gulf of Mexico due to a British Petroleum (BP) oil drilling rig explosion (Environmental Protection Agency, 2017). This explosion created the biggest oil spill in history, causing damage to the ecosystem, the animals that lived in the water, and to citizens who made their homes near the coast. Eleven workers were killed during the explosion. According to the Environmental Protection Agency (2017), the case settlement was record-breaking, resulting

in “an unprecedented \$5.5 billion Clean Water Act penalty and up to \$8.8 billion in natural resource damages” (n.p.).

In viewing the prosecution and sentencing of corporations that commit environmental crime, it is difficult to ignore the fact that as a nation, the United States of America has a great deal of work to do. In cases in which hundreds of citizens became ill or lost their lives, judgements against corporations and businesses seem to be lenient. Politicians and administrators of the criminal justice system promote programs that get tougher on some crimes, but not on those crimes committed by corporations or the wealthy. The prosecution of environmental crimes largely results in misdemeanor convictions, and occurs less frequently today than the number of environmental convictions in 1970 (Jarrell & Ozymy, 2012). When people place profit over human life without fear of criminal prosecution, it leads to questions about the state of our justice system.

Green Criminology

In today’s world the media focus on certain popular issues in the environment. Academic researchers from the physical and social sciences have produced environmental research to address their concerns about climate change and atmospheric pollution (Hall, 2013). Climate change and the rising of sea levels worldwide have led to a new branch of criminology that examines environmental issues. One cannot underestimate the importance of environmental research in our daily lives. Green criminology was developed to address environmental issues and to study environmental crime. Lynch coined the term in 1990 in an effort to address the need for this type of criminological research (Lynch & Stretesky, 2014). Lynch and Stretesky (2014) define green criminology as “a means for studying problems related to environmental harm and crime, victimization, law, environmental justice, environmental regulation, and moral/philosophical issues as these issues relate to humans, non-human animals, plant species, and so on, and the ecosystem and its components” (p. 51). Potter (2012) defines green criminology as “the analysis of environmental harms from a criminological perspective, or the application of criminological thought to environmental issues.”

The second definition varies in its effort to frame the study of the environment from a criminological perspective. Green criminology deserves more recognition, due to the need for research in an area that affects the lives of such a significant number of victims.

Environmental Crime

Environmental crime is an important aspect of green criminology (White, 2015). According to the Michigan Department of Environmental Quality (MDEQ) (2013), environmental crime is “the intentional, knowing, reckless, or criminally negligent violation of our environmental laws and regulations” (n.p.). In committing these crimes, corporations appear to value profit over the lives of citizens, who may become victims in large numbers. An example of corporate environmental crime in which a corporation made the decision to cut costs by dumping waste, saving them money but damaging the ecosystem and the health of nearby citizens occurred in the Love Canal case in Niagra Falls, N.Y. In this case, the Hooker Chemical Company chose to bury chemicals instead of disposing them properly, leading to severe health problems for local residents (Environmental Protection Agency, 2016).

Victims of environmental crimes have traditionally been excluded in victimology literature (Hall, 2014), but should be included due to their growing numbers. Noting the absence of green victimology, Mathew Hall (2014) has called for an awareness of the needs of environmental victims, as well as an increased awareness of green criminology. Some cases of environmental crime are not criminal, which may influence why victims are not represented in criminological research, and why green criminology is poorly represented in criminological literature. Measuring the degree of environmental crime and its true cost on ecosystems shows that environmental crimes are both extremely dangerous, due to the number of victims, and very expensive, due to the cost to clean up after disasters. Despite the high health costs and mortality rates of environmental crime, its underrepresentation ignores its magnitude and the harm experienced by its victims.

Crime Victims' Rights Act and Role to Protect Green Victims

An examination of past United States environmental court cases suggests that the courts favored those being persecuted over the victims. Conventional crime victims' rights have been traditionally unpopular in the United States, and seemed to mirror the debates of the Civil Rights Movement. The Crime Victim Rights Act (CVRA), triggered by victims' rights activism and lawmaking in the 1980s and 1990s, was enacted in 2004 (Jarrell & Ozymy, 2012). Jarrell and Ozymy (2012) state that, "[t]he primary purpose of the CVRA is to empower crime victims, expand the role of the victim in federal criminal prosecutions, and provide more clearly defined roles for victims in court proceedings" (p. 374). Most green victims, however, do not enjoy the protections offered under the CVRA due to the complexity of proving they were injured by an environmental crime, and the fact that often large numbers of victims are often included in the case (Jarrell & Ozymy, 2012). In most cases, victims had to file a request for a writ just to express their opinion, or to create a record of their distress about incidents that had an intense effect on their lives.

Jarrell and Ozymy (2012) declare that, "the central point raised is that the CVRA will further complicate criminal proceedings in already complex environmental crime cases by creating extensive problems and delays for the court, the prosecution, and the defense" (p. 378). Corporate wealth creates a power imbalance when matched with the number of victims of environmental crimes. Some victims are silent or are even paid off; many do not have enough money to take their case to court. An additional complication was that until 2010, juries were not able to obtain personal statements from victims. Jarrell and Ozymy (2012) state that, "the few cases that actually result in a criminal prosecution are exceptional and the victims are not only speaking for themselves, but also on behalf of the hundreds, if not thousands, of environmental crime victims in their communities" (p. 384). An important issue is determining where "environmental crime" fits into the legal definition as a crime with actual victims, "recognizing [that] these victims will draw negative publicity, making the negotiation of plea agreements and voluntary disclosure more difficult" (Jarrell & Ozymy, 2012, p. 379).

Researchers argue that green crimes are the greatest source of disorder, harm, and disease amongst citizens than all conventional crimes combined, yet green crimes are often viewed as crimes without victims (Jarrell & Ozymy, 2012). In general, corporations commit acts that are significantly harmful to the environment and human well-being that might not infringe on “criminal law,” but should be deemed as criminal defilements of the law (Jarrell & Ozymy, 2012). Jarrell and Ozymy (2012) state that, “[l]aws are social constructions; thus, behaviors legally recognized as green or environmental crimes include only those behaviors that law-makers and the law-making process determines should be criminalized” (p. 382).

How can lawmakers choose what is deemed “criminal,” when lives are at stake? One would believe that any bodily harm committed upon someone by another person who is well aware of the consequences before the crime or act is committed should be considered criminal. Laws seem to be lax, or negotiable when those of high status break them. For example, in the case *United States v. Brightwell*, toxic substances were illegally released into a parking lot storm drain (The United States Department of Justice, 2015). The storm drain leads to the Potomac River, which was used as a popular fishing source, water supply, and wild life zone for many animals (American Rivers, 2016). Estimates show that 1,000 citizens could have become sick or died due to exposure or from consuming the toxins. Brightwell had to face a punishment of ten months in prison and reimburse \$270,667 for the river’s restoration (The United States Department of Justice, 2015). Many of the actions that cause such devastation result from willful acts of negligence that negatively affect human health and produce a multitude of environmental victims. In response to this issue, Jarrell and Ozymy (2012) state that, “[t]he problem is learning to accept that when companies dump chemicals into rivers, streams, and landfills, or alongside roadways, they do so purposefully and with knowledge that the likely results of their actions will include injury and death for those exposed to their waste products” (p. 382).

The rights of environmental victims seem to be different from conventional crime victims. Support services offered to environmental victims are far less than those available to

traditional crime victims. Hall (2014) points out that, “[h]uman rights have...become one of the cornerstones of the discussion going on around traditional victims of crime (as well as criminal justice in general) and, as such, will prove a vital component of green victimology as well” (p. 136). Strengthening the rights of environmental victims is crucial in changing how they will be perceived under the law. Such a change in perception will reduce the number of crimes committed on the environment, and make those who choose to violate those rights more likely to receive stronger punishment under criminal law.

Conventional crime victims receive more legal protection and more rights in the courtroom. Green crime victims’ cases are usually prolonged, and authorities often step in to delay actions. In some civil cases victims are only able to sue corporations if they allow the state in which the crime occurred to sue on their behalf. Many cases against corporations and businesses end in fines, or with the judge throwing out the case; environmental victims often go uncompensated for their losses and damages when the government steps in to sue on their behalf (Jarrell & Ozymy, 2012). Conventional crime victims receive more recognition and are given more discretion in court than environmental victims. The superior recognition given to victims of conventional crime only further disregards the suffering of environmental crime victims (Jarrell & Ozymy, 2012). The fact is that green crime and environmental harm affects all, making everyone victims, especially when the crimes may end in ozone depletion, air and water pollution, acid rain, and global warming (Jarrell & Ozymy, 2012).

History of Environmental Justice

The environmental justice movement is important to the United States, having created the possibility for criminologists to study both crimes against the environment, and how pollution may be seen as evidence of environmental racism. The environmental justice movement grew out of the Civil Rights Movement, beginning a discussion about the environment and a nationwide public discourse on political action and constitutional rights (Lester, Allen, & Hill, 2001). The political concept of “environmental racism” was introduced after a United Church of

Christ study was conducted in 1983, showing connections between poverty and pollution (Zilney, McGurrin & Zahran, 2006).

Over the past fifty years, crimes against society have been addressed by the passing of a number of important acts: the Civil Rights Act of 1964 was enacted to address the inequalities in American civic life, and played a role in raising awareness about the differences in amenities, living quarters, working sites, loans, schooling, and government assistance services (Zilney, McGurrin, & Zahran, 2006). The 1964 National Environmental Policy Act led to the Council on Environmental Quality, which “became one of the first efforts to address the state of the environment while taking into account its specific impact on inner city residents” (Zilney, McGurrin, & Zahran, 2006, p. 49). In 1976, the Federal Resource Conservation and Recovery Act (FRCA) was created to hold corporations accountable for illegally dumping hazardous waste. The FRCA gave the federal government the power to criminally prosecute corporations for dumping toxic substances. Between 1970 and 1980 the federal government passed fifty acts to protect the environment from polluters and poachers. In 1994, President Bill Clinton signed Executive Order 12898, which was intended to ensure “that no group of people, either because of their race or income, are burdened disproportionately by environmental health risk resulting from industrial, municipal, and commercial operations and planning decisions” (Zilney, McGurrin & Zahran, 2006, p. 54).

The Environmental Protection Agency (EPA) defines “environment justice” as “the fair treatment and meaningful involvement of all people regardless of race, ethnicity, income, national origin, or educational level with the respect to the development, implementation and enforcement of environmental laws, regulations and policies” (Environmental Protection Agency, Office of Federal Activities, 1998). Some scholars and community activists would argue that environment justice rarely occurs in society today.

Typical Green Crime Victims

The majority of environmental victims are low-income citizens and minorities. Research shows that minority and low-income neighborhoods are at higher risk of environmental pollution

(Kremer, 2016). In a study by the general accounting agency, Walter Fauntroy, a chairperson of the Congressional Black Caucus, examined data that was stored in the EPA District IV on the racial distribution and financial standing of citizens living near dangerous substances (Zilney, McGurrin, & Zahran, 2006). The findings showed that African Americans were far more likely to live near dangerous pollutants than other races (Zilney, McGurrin, & Zahran, 2006). Results stated that in “3 of the 4 hazardous sites” examined in the study, African Americans accounted for the majority population (Zilney, McGurrin, & Zahran, 2006, p. 52). Jarrell and Ozymy state that, “it is well established in the sociological and criminological literature that low income people of color are more likely to be exposed to environmental risk” (Jarrell & Ozymy, 2014). The study also revealed that “economic class played a role in the distribution of environmental hazards,” as “rates of poverty increased as one moved closer to facility spatially,” and the “relationship appeared perfectly linear” (Zilney, McGurrin, & Zahran, 2006, p. 52). A study conducted by Kramer (2016) between 2007 and 2011 examined whether there was a relationship between fines levied against polluters and the status of people who lived near facilities, based on race and social class. The information in Kremer (2016) was gathered from the Environmental Inequality Formation perspective, and information from the EPA administration cases (Kremer, 2016). The study findings showed that “fines are less severe for facilities located in communities that are primarily Hispanic or low income” (Kremer, 2016, p. 534).

In crimes against the environment, defendant profiles do not often fit the stereotypical victim. Jurors and judges may offer leniency to polluters, due to the low economic status of the victims (Jarrell & Ozymy, 2012). Jarrell and Ozymy (2012) argue that “judges appear to view environmental defendants as less culpable than other criminal defendants, undermining the seriousness of environmental crimes. Due to the funding, prosecution of environmental crimes does not occur often” (p. 386).

Problems in Regulating Environmental Crime

One major barrier to the prosecution of environmental crime concerns the funds available to the Environmental

Protection Agency to regulate and prosecute those who commit acts against the environment. Jarrell and Ozymy (2012) state that “[t]he difficulties inherent in prosecuting environmental crimes, limited resources of EPA and the DOJ (Department of Justice) to do so, and the many alternatives available to criminal prosecution suggest those cases that do go forward are likely major offenses that involve potentially serious harm to victims” (p. 383). The insufficient funds add to many problems that already exist, such as a lack of staff to fulfill the tasks of protecting the environment. The Environmental Protection Agency has fewer than 200 special representatives to investigate cases of environmental crime (Jarrell & Ozymy, 2012). The total number of agents is lower than those hired by other government agencies, such as the Federal Bureau of Investigation. Insufficient funding may lead the agency to only take on cases they believe will result in the conviction of a perpetrator.

Need for Integration

Environmental crime occurs daily, but is often covered up. In many cases corporations are run by professionals who succeed in shifting the blame to others. The integration of environmental and criminal law would protect victims from those who display no fear of prosecution for their actions. Because environmental crimes often involve large numbers of victims, local and state level law enforcement agencies should also be involved in the proper regulation of companies. Working together, state and federal resources could also strengthen and protect the rights of vulnerable citizens.

An additional challenge faced by green criminologists is the study of the effects toxins and pollutions have on those who are victims of environmental crime. Environmental toxins have effects beyond disease and death, including “deviant behavior, mental illness, or other mental health and psychological problems” (Lynch & Stretesky, 2014, p. 103). Lynch and Stretesky (2014) state that, “significant literature in the medical and biological sciences indicates that exposure to environmental toxins can also change behavior” (p. 103). *Behaviorism*, a term used in psychology, refers to criminologists’ view of human and animal behavior that plays a role in criminal behavior (Lynch & Stretesky, 2014). Defined as the “branch of green criminology that examines

the relationship between exposure to environmental toxins and criminal behavior,” *green behaviorism* describes the idea “that exposure to environmental toxins can change behavior [and] can be employed to help explain factors that generate crime and affect its distribution” (Lynch & Stretesky, 2014, p. 103). Integrating green criminology with mainstream criminology could provide new foundations for research, as criminologists and agents of the criminal justice system work together to lower crime. As Gregg Barak (1998) writes, “all disciplines concerned with the study of society and human nature have valuable contributions to make to the study of crime, criminals, and crime control” (p. 13).

Two examples of toxins that affect human behavior are lead pollution and endocrine disrupting chemical pollution. Lead has been studied epidemiologically on human well-being and behavior for some time (Lynch & Stretesky, 2014, p. 117). Epidemiological research indicates that lead affects human health in the areas of: maintaining focus; diminished mental function and the ability to follow rules; lack of problem-solving skills; no function, to unsuitable reaction patterns; insufficiencies in skills related to mathematics, reading, spelling, and term acknowledgement (Rice, 1996). A study done by Rick Nevin in 2007 confirmed the connection between measures of playschool blood levels of lead and crimes at different points of examination, across several countries (Lynch & Stretesky, 2014). Nevin’s (2007) findings showed a “relationship is characterized by best-fit lags (highest R² and t-value for blood lead) consistent with neurobehavioral damage in the first year of life and the peak age of offending for index crime, burglary, and violent crime” (Nevin, R., 2007).

Endocrine chemical pollutants affect the human body in terrible ways. According to Lynch & Stretesky (2014), endocrine pollutants “are chemicals that act like hormones when introduced into biological species, and which, because of their similar chemical structures when compared to hormones, play the same role as hormones in biological organisms” (p. 119). When these chemicals enter the body, they result in cancers, birth deficiencies, and a variety of developing illnesses including learning disabilities, failure in maintaining focus, and intellect developmental syndromes (Lynch & Stretesky, 2014).

DATA AND SAMPLE

In this study, the American Society of Criminology's Division of Victimology's website, www.ascdov.com, was used to obtain the sample. The ASC's Division of Victimology was established in 2012 and currently has 140 members representing seven different countries. The website has valuable resources for teaching, including syllabi. The online database provides eight sample undergraduate victimology course syllabi, with eleven textbooks assigned to students. Those eleven textbooks are the subjects of this study.

METHOD

This study sought to determine: (1) what themes commonly emerged when environmental crime victims are discussed, and (2) what types of crimes are presented when environmental crime victims are *not* discussed in Victimology textbooks. The method utilized in this study is a content analysis. The eleven textbooks recommended in Victimology syllabi were analyzed to examine how victims of environmental crimes are represented in Victimology literature. The Table of Contents and Index of each book were analyzed for specific content, including *environmental crime*, *green crime*, *critical or radical crime*, and *environmental justice*. When *environmental crime* was not included in the Table of Contents or Index, I searched for the following eleven terms: *intimate partner violence*, *sexual assault*, *rape*, *criminal homicide*, *hate crime*, *property crime*, *robbery*, *school and work violence*, *elder abuse*, *special populations*, and *child abuse*. "Special populations" are crime victims with mental illness, disabilities, and those who are incarcerated (Daigle, 2012). I should note that the textbooks also included an undefined term, "*other*," which I did not include in this study.

RESULTS

In general, findings from the content analysis suggest that environmental crime victims were underrepresented in Victimology literature. A discussion of green crime occurred in only 3 of the 4288 pages of the eleven textbooks in the sample (**Table 1**).

Title of Textbook	Green Crime Pages (# and %)	Non-Green Crime pages (%)	Total Pages (%)
Victimology: Theories and Applications	3 (.993%)	299 (99.07%)	302 (100%)
Crime Victims: An Introduction to Victimology	0	490 (100%)	490 (100%)
Victimology: A Study of Crime Victims and Their Roles	0	382 (100%)	382 (100%)
Victimology 7 th Edition	0	440 (100%)	440 (100%)
Victimology: Legal, Psychological, and Social Perspectives	0	302 (100%)	302 (100%)
Forensics: Quick Reference to Adult and Older Adult	0	411 (100%)	411 (100%)
Controversies in Victimology	0	168 (100%)	168 (100%)
Trauma and Recovery	0	276 (100%)	276 (100%)
Transcending Reflections of Crime Victims	0	197 (100%)	1197 (100%)
What Will Happen To Me?	0	88 (100%)	88 (100%)
Victimology	0	598 (100%)	598 (100%)
Total	3	4285 (100%)	4288

Table 1: Representation of victims of green crime in Victimology textbooks, by number and percentage.

Only one textbook, *Victimology: Theories and Applications* included content addressing environmental crimes, and only a few lines discussed environmental victims (Burgess, Regehr, & Roberts, 2013). None of the other textbooks mentioned environmental crime or environmental victims. Their content was entirely focused on conventional crime and its victims.

The three (3) pages discussing environmental crime in *Victimology: Theories and Applications* mentioned corporate victimization, motives for corporate crimes, and offer examples of two environmental crimes, as well as a section on “White Collar Crime.”

The two environmental crimes addressed in the textbook are the Pacific Gas and Electric case, and the Buffalo Creek, West Virginia case. The Pacific Gas and Electric case concerned the contamination of water used for consumption in Hinkley, California, and resulted in a \$333-million-dollar reimbursement (Burgess, Regehr, & Roberts, 2013). The Buffalo Creek, West Virginia case involved a dam full of sludge bursting open (Burgess, Regehr, & Roberts, 2013). The dam, which was designed to hold coal surplus, failed four days after being cleared as “satisfactory” by a government inspector (Burgess, Regehr, & Roberts, 2013).

Corporate crime victims are discussed on the following page of the text. The authors provided background information on this topic, while asserting that insufficient attention is given, in general, to this area of criminology. The authors mentioned the American Economic Society and its role in helping frame the first “White Collar Crime” textbook, then included the following terms as relevant to white color criminology: *government, organizations, investors and savers, consumers, employees and the public* (Burgess, Regehr, & Roberts, 2013). The textbook associated *the public* with crimes such as, “[e]nvironmental contamination including illegal emissions from industry, farming, and transport; littering; waste dumping; the pollution of land, water and rivers; and noise pollution” (Burgess, Regehr, & Roberts, 2013, p. 554). The discussion ends with a description of the Environmental Protection Agency (EPA), and background information on its activities.

The second question in this study examined the types of crimes found in a sample of eleven (11) Victimology textbooks when environmental crime victims were not discussed. As stated above, eleven (11) crimes were found in the sample. Percentages were calculated for the number of pages dedicated to a discussion of each crime in the sample (**Table 2**).

The sample included 4285 pages that included no material on environmental crime. The 11 types of crime were discussed on 1364 pages of the sample. These topics were common not only to Victimology literature, but in all of the textbooks. “Other” crimes, which are not examined in this paper, were discussed on 2921, or 68% of the total pages.

Crimes	Non-Crime Pages(# and %)
Intimate partner violence	274 (6.39%)
Sexual assault /rape	243 (5.67%)
Criminal homicide	77 (1.80%)
Hate crime	137 (3.2%)
Property crime	17 (0.4%)
Robbery	8 (.19%)
School and work violence	225 (5.25%)
Elder Abuse	84 (2%)
Special population	128 (3%)
Child Abuse	171 (4%)
Other topics	2921 (68%)
Total	4285

Table 2: Crime-related search terms included in Victimology textbooks when environmental crime was not referenced, by number of pages and percentages.

DISCUSSION

Based on the examination of textbooks assigned for Victimology courses in higher education, it is evident that environmental crime victims are underrepresented in Victimology research. This may be due to a lack of funding and scholarship in this area of study. This underrepresentation is problematic because it underestimates the full scope and impact of environmental crime. The magnitude of environmental crime seems to be less popular than other kinds of crimes in general, because environmental crime victims often belong to lower socioeconomic groups and have few means of fighting corporate polluters. In stating the importance of this problem, Barak's Theoretical Premise (2009, 1998) could explain why green criminology is deemed less important than other crimes. Many politicians and media outlets suggest that crime

rates in poor neighborhoods are extremely high, though data from the Uniform Crime Report show that criminal acts are decreasing. Less disciplinary action is taken against environmental criminals because the victims often come from communities considered “less worthy” of protection.

Legal reforms are needed to protect victims of environmental crime. The integration of civil law and criminal law when dealing with environmental cases will offer the same protections to environmental crime victims as those that exist for conventional crime victims. The regulation of corporations should also be given to local governments and law enforcers. Police officers must be trained to respond to green crimes and recognize the immediate needs of victims. Green victimology is of critical concern to the health and welfare of some of our nation’s most vulnerable.

REFERENCES

- American Rivers (2016). Potomac river. *American Rivers*. Retrieved May 16, 2016, from <https://www.americanrivers.org/river/potomac-river/>
- Barak, G. (1998). *Integrating criminologies*. Needham Heights: Allan and Bacon.
- Barak, G. (2009). *Criminology: An integrating approach*. Lanham: Rowman and Littlefield Publishing.
- Burgess, A. W., Regehr C., & Roberts, A. R. (2013). *Victimology: Theories and applications*. Burlington: Jones and Bartlett Learning.
- Environmental Protection Agency, Enforcement. (2017). Deepwater horizon BP Gulf of Mexico oil spill. Environmental Protection Agency.
- Environmental Protection Agency, Office of Federal Activities. (1998). Final guideline for incorporating environmental justice concerns in EPA’s NEPA compliance analyses. Washington, DC: U.S Government Printing Office.
- Hall, M. (2014). Environmental harm and environmental victims scoping out a ‘green victimology’. *International Review of Victimology*, 20(1), 129-143.
- Jarrell, M. L., & Ozymy, J. (2014). Few and far between: Understanding the role of the victim in federal environmental crime prosecutions in the United States. *Crime, Law and Social Change*, 61(5), 563-584. <http://dx.doi.org/10.1007/s10611-014-9514-x>
- Jarrell, M. L., & Ozymy, J. (2012). Real crime, real victims: environmental crime victims and the Crime Victims’ Rights Act (CVRA). *Crime, Law and Social Change*, 58(4), 373-389.
- Kremer, J. (2016). Environmental sentencing in the united states pacific northwest 2007–2011: A story of disparity. *Sociological Perspectives*, 59(3), 528-542. <http://dx.doi.org/10.1177/0731121416629990>

- Lester, J., Allen, D., & Hill, K. (2001). *Environmental injustice in the United States: Myths and realities*. Boulder: Westview.
- Lynch, M. J., McGurrin, D., & Fenwick, M. (2004). Disappearing act: The representation of corporate crime research in criminological literature. *Journal of Criminal Justice*, 32(5), 389-398.
- Lynch, M. J., & Stretesky, P. B. (2014). Exploring green criminology: Toward a green criminological revolution. *Ashgate*. Retrieved from <http://ebookcentral.proquest.com.ezproxy.emich.edu/lib/emich/reader.action?docID=1590690&ppg=12>
- McGurrin, D., Jarrell, M., Jahn, A., & Cochrane, B. (2013). White collar crime representation in the criminological literature revisited, 2001-2010. *Western Criminology Review*, 14, 3.
- Nevin, R. (2007). Understanding international crime trends: The legacy of preschool lead exposure. *Environmental Research* 104(3), 315-36.
- Potter, R. G. (2012) Green criminology. Retrieved from <http://greencriminology.org/glossary/green-criminology/>
- Rice, D.C. (1996). Behavioral effects of lead: Commonalities between experimental and epidemiologic data. *Environmental Health Perspectives* 104, 2: 337-351.
- State of Michigan Department of Environmental Quality. (2013). Michigan environmental crimes handbook. Michigan Government.
- The United States Department of Justice. (2015). Prosecution of federal pollution crimes. Retrieved from <https://www.justice.gov/enrd/prosecution-federal-pollution-crimes>
- White, R. (2015). Environmental victimology and ecological justice. In *Crime, Victims and Policy* (pp. 33-52). Palgrave Macmillan UK.
- Zilney, L. A., McGurrin, D., & Zahran, S. (2006). Environmental justice and the role of criminology an analytical review of 33 years of environmental justice research. *Criminal Justice Review*, 31(1), 47-62.