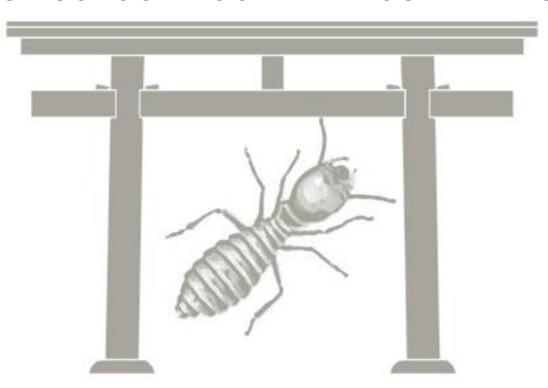




2015 PENNSYLVANIA STATEWIDE HIGH SCHOOL MOCK TRIAL COMPETITION



The Commonwealth of Pennsylvania

V.

Harper Marmalard

SPONSORED BY THE YOUNG LAWYERS DIVISION OF THE PENNSYLVANIA BAR ASSOCIATION

By: Jon Grode, Paul Kaufman, Jonathan D. Koltash & Talia Charme-Zane

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Problem Questions & Contact Information

Questions concerning these case materials should be sent to David Keller Trevaskis at the Pennsylvania Bar Association (PBA). Case material questions will be answered by the Mock Trial Executive Committee. Questions regarding mock trial procedure, including any questions involving the Rules of Competition or Rules of Evidence, should be directed to your District or Regional Mock Trial Coordinators.

Answers to legitimate and non-repetitive questions will be posted periodically in a supplemental memo on the mock trial website www.pabar.org under the Young Lawyer's Division (YLD) link.

You may begin submitting questions anytime. The deadline for submitting questions is noon on January 14, 2015. The final update will be posted no later than January 16, 2015.

Questions must be sent in writing using email. Please be sure to include return contact information in the event we need to reach you to clarify a question. **No questions will be considered unless submitted under this procedure**.

E-mail: david.trevaskis@pabar.org

Introduction and Acknowledgments

Welcome to the 2015 Pennsylvania Statewide High School Mock Trial Competition - the 31st year of one of the top secondary level academic competitions in the Commonwealth! The competition, which commenced in 1984, is sponsored by the Young Lawyers Division of the Pennsylvania Bar Association (PBA/YLD). It provides high school students with firsthand experience of the American judicial system. The Mock Trial Competition is one of a series of law-related and civic education programs conducted by the PBA to engage students in learning about our judicial system and help prepare them for active citizenship. Other programs include: I Signed the Constitution; Project PEACE; Law Day; and Stepping Out for high school seniors. These programs are funded by the Pennsylvania Bar Foundation.

This year's case, *Commonwealth v. Harper Marmalard*, is a criminal action charging intentional homicide on a college campus.

The case was written by Jonathan A. Grode, Paul W. Kaufman, Jonathan Koltash, and Talia Charme-Zane. Mr. Grode and Mr. Kaufman have co-written the Pennsylvania problems since 2011, and they co-wrote the national problems in 2010, 2012, and 2014. Mr. Grode also adapted and modified the 2007 mock trial problem and wrote the 2008, 2009, and 2010 mock trial problems. Mr. Grode is the Practice Director of the United States Immigration Law Firm of Green and Spiegel and an Adjunct Professor of Law at Temple University. Mr. Kaufman was a four-time Delaware state champion mock trialer in high school and is a current member of the National High School Mock Trial Championship Board of Directors. Mr. Koltash co-authored the 2014 Pennsylvania case and is the PBA/YLD Mock Trial Co-Chair. Ms. Charme-Zane is a student at Stanford University and an alumna of the Pennsylvania mock trial program, where she captained the Central High School (Philadelphia) team. She is a Philadelphia regional champion.

Mr. Grode thanks his wife, Jayne Bird, who tolerates his ongoing obsession with mock trial drafting, notwithstanding the fact that he promises each year that "this one will be the last he works on" as well as his newborn daughter, Olivia, who helped make the late night drafting even more enjoyable. Mr. Grode also thanks Roberta West for introducing him to the wondrous world of Pennsylvania Mock Trial and the entire mock trial writing team for ultimate creativity.

Mr. Kaufman thanks his wife, Sarah, for her support, counsel, and unparalleled patience, and he thanks United States Attorney Zane David Memeger and Chief of the Civil Division Margaret L. Hutchinson for their remarkable support of high school mock trial in Philadelphia and throughout Pennsylvania. Mr. Kaufman also especially thanks Mr. Koltash and Ms. Charme-Zane, whose enthusiasm and energy in trying times revived his own.

Mr. Koltash thanks his wife, Alaina, for her patience and support each year during "mock trial season" - which never seems to end. He also thanks Mr. Grode and Mr. Kaufman, whose leadership in writing the problem each year is greatly appreciated. Their countless hours and dedication to ensuring a balanced, creative problem for the participants of the competition makes them the unsung heroes of the competition. For that, he is in their debt.

Ms. Charme-Zane thanks Mr. Grode and Mr. Kaufman for humoring her in her refusal to ever move on from Philly mock trial. She also thanks her former mock trial coach, Julian Thompson, who taught her everything she knows, including how to make witnesses cry during cross examination.

Thanks also goes to the other co-Chair of this year's Competition, Traci Naugle, Esq., for her efforts in organizing and implementing the many facets of this competition. The Mock Trial Committee would also like to express its appreciation to Lars Anderson, current PBA/YLD Chair, and Justin Bayer, the PBA/YLD Chair Elect, for their support of the competition. We also acknowledge and appreciate the ongoing dedication and effort of Jane Meyer, who never seems to tire of mock trial!

Additionally, we thank David Trevaskis, PBA Pro Bono Coordinator for his continued involvement and experienced guidance in implementing the 2015 Mock Trial Competition, and Anne Panfil, retired Chief Counsel to the Criminal Procedural Rules Committee of the Pennsylvania Supreme Court, for her work reviewing the problem in its final draft.

Finally, we thank the hundreds of volunteers who annually contribute their time and energy to the overall organization and running of the program. Last, but certainly not least, we thank the PBA staff, headed by Executive Director Barry Simpson and Deputy Executive Director Fran O'Rourke, and the many PBA staff members who provide valuable time and talent throughout the mock trial season. Without their assistance, this competition would not be the tremendous success that it is each year.

Special thanks go to Maria Engles, the PBA/YLD Coordinator, whose contributions to the program are so numerous as to defy description.

We hope you find these materials interesting, and wish you all the best of luck!

Case Summary

Kalmia University is one of America's best known places of higher education. Founded in 1767, on the eve of the American Revolution, it perennially ranks in the U.S. News and World Report Top Ten Undergraduate Colleges and its research programs in the arts, sciences, and engineering are world renowned. For over two hundred years, Presidents, Ambassadors, and Nobel Prize winners have been proud to call themselves "Kalmia Men." Kalmia was one of the first of America's elite universities to become co-educational, and since 1927, "Kalmia Women" have also joined the ranks of the nation's power brokers.

As famous as Kalmia is for its academics, it is perhaps better known for its less visible paths to power and influence. From the Eight Wise Men to Kite and Key, honor societies and secret societies at Kalmia spread out across campus, "tapping" those whom they wish to recruit to join them. The most powerful and most influential of the honor societies at Kalmia is Zeta lota Pi (ZIP) and its members are known as Zippers. The motto of the honor society states, "we stick together", and that network carries them through the corridors of power throughout the world.

But all was not as well as presented among the ranks of the Zippers at Kalmia University. For several years, the "sticking together" had taken a darker turn, fostering an underground cheating scandal that allowed Zippers to get credit for classes for which they barely worked, giving them an unfair advantage over other students and calling into question the fundamental ethics of every member. At the apex of the scandal was a senior post-doc named Corin Boon and the current ZIP pledge master and president, Harper Marmalard. On the surface, they were both well-liked and academically sound rising scientists in the fields of botany and entomology. Underneath, they both carried the burden of promoting, yet at the same time, hiding, this academic secret.

In early September 2014, Mandy Pepperidge was recruited into ZIP. Living in the ZIP on-campus house, Pepperidge and her fellow pledge, Alex Otter, stumbled across the cheating scheme as they completed a series of pledge challenges called the Feats of Fortitude. Their discovery revealed that one prime beneficiary of the scandal was Marmalard. Faced with increasing harassment, Pepperidge fought back, threatening to reveal the conspiracy to the ZIP national administration. Within weeks, she was dead, the victim of a fatal fall that occurred while she completed the last of the ZIP pledge tasks assigned to her by Marmalard.

A promising young life has ended. An ancient honor society and a renowned university are disgraced. But a question remains: was this merely a tragic pledge event that ended badly? Or was it murder? Also, where did all of those termites come from?

Marmalard stands accused of homicide. The principal witnesses against her/him are the former pledge and friend of Pepperidge, Alex Otter, and Marmalard's co-conspirator in the cheating scandal, Corin Boon, and as an expert witness in the field of entomology, Drew Pinto. Rallying to Marmalard's side are another former pledge, Dana Stork, and an expert witness in the field of entomology who also served as a mentor to Marmalard, Lane Dorfman. A community is shattered, reputations ruined, and a venerable institution turns on itself in shock and dismay.

Trial is joined.

WARNING NOTICE

TO ALL STUDENTS AND MOCK TRIAL PARTICIPANTS:

Within the case material, you will find references to a number of recent internet fads and social media challenges. While the characters in the case partake in these activities, by no means or purpose should that be construed as the Mock Trial Executive Committee, the Young Lawyers Division of the Pennsylvania Bar Association, or any other group condoning or encouraging such activities. There is inherent risk involved and you could be hurt if you mimic the behavior of the characters. Indeed, one of the lessons of this problem is that people can get hurt by such behavior.

Hazing is never appropriate and even the behavior the fictional characters in our story accept (serving older students, taking on chores that others do not have) push the line of hazing. Many think of hazing as a rite of passage, nothing more than harmless pranks that are associated with group initiations. But just google "hazing" and see the headlines where lines are crossed. If you are hazed, please get to safety and report it, to your school and to those who care for you.

DO NOT REENACT!

PLEADINGS

COMMONWEALTH OF PENNSYLVANIA : COURT OF COMMON PLEAS OF THE

: 61st JUDICIAL DISTRICT, PENNSYLVANIA

:

v. : Docket No.: <u>CP-51-CR-71499-2014</u>

:

: Charges:

HARPER MARMALARD, : Murder (1st Degree) (1 Count)

Defendant :

CRIMINAL COMPLAINT AND PROBABLE CAUSE AFFIDAVIT

I, Detective Otis Day, Badge 200103, of the Kalmia County Police Department, do hereby state:

1. Laccuse:

Harper Marmalard, who resides at 31415 Pi St., Laurel, PA.

- 2. The acts committed by the accused were:
 - ** MURDER IN THE FIRST DEGREE

COUNT 1

The accused did cause death to another intentionally (18 Pa.C.S.A. § 2502(a)) in that the accused did place into a wooden structure, a paifang archway, a wood-boring insect, the Formosan Subterranean Termite, in order to weaken said structure, and did then cause an individual, Mandy Pepperidge, to climb such structure, knowing that it was weakened, knowing that she did not know that, and intending that she should fall and die and/or that the structure should collapse, causing her death, and that in so doing the accused did, in fact, cause Pepperidge to fall and/or portions of the arch to collapse, proximately causing the death of a living person, Ms. Pepperidge.

3. The accused committed these acts against the peace and dignity of the Commonwealth of Pennsylvania and contrary to the Acts of the General Assembly, ...

18 Pa.C.S.A. §§ 2502(a).

- 4. I ask that a warrant of arrest or a summons be issued and that the accused be required to answer the charges I have made.
- 5. I verify that the facts set forth in this Complaint are true and correct to the best of my knowledge, information and belief subject to penalties of 18 Pa.C.S.A. § 4904, relating to unsworn falsification to authorities.

Date:	November 2, 2014	/s/ Otis Day
		(signature of the complainant)

AND NOW, on this date, <u>November 5,</u> completed and verify that there is probal		ly
	/s/ Matty Simmons Judge Issuing Authority	

Clerk of Courts - Original

COMMONWEALTH OF PENNSYLVANIA: COURT OF COMMON PLEAS OF THE

: 61st JUDICIAL DISTRICT, PENNSYLVANIA

:

v. : Docket No.: <u>CP-51-CR-71499-2014</u>

:

: Charges:

HARPER MARMALARD, : Murder (1st Degree) (1 Count)

Defendant

Transcript of Proceedings before Issuing Authority

- 1. Defendant Harper Marmalard, who resides at 31415 Pi St., Laurel, PA., was arrested on November 6, 2014 and charged by Complaint with one count of Murder in the First Degree, 18 Pa.C.S.A. § 2502(a).
- 2. A Preliminary arraignment for Defendant Harper Marmalard was held before the undersigned at 751 East 11th Street, Laurel, Pennsylvania on November 6, 2014.
- 3. At the preliminary arraignment, the Defendant was advised of her/his right to apply for assignment of counsel and was given a copy of the Criminal Complaint.
- 4. At the preliminary arraignment, bail was set at \$500,000 based on the evidence presented at that time and the Criminal Complaint previously filed with the Court. The request for 10% bail posting made by the Defendant was granted.
- 5. On November 13, 2014, a preliminary hearing was held before undersigned at 751 East 11th Street, Laurel, Pennsylvania. The Defendant was present and was represented by counsel. The Commonwealth was represented by the assigned Assistant District Attorney. Detective Otis Day was sworn and testified for the Commonwealth.
- 6. At the conclusion of the preliminary hearing on November 13, 2014, the Defendant was held for court on the charges of Murder in the First Degree.
- 7. Bail was continued in the amount of \$500,000.

AND NOW, on this date,	November 15, 2014	I certify the transcript of proceedings before
issuing authority has been	n properly completed.	

/s/ Matty Simmons	
Judge	
Issuing Authority	

Clerk of Courts - Original

COMMONWEALTH OF PENNSYLVANIA	: COURT OF COMMON PLEAS OF THE : 61 st JUDICIAL DISTRICT, PENNSYLVANIA
v.	: Docket No.: <u>CP-51-CR-71499-2014</u>
HARPER MARMALARD, Defendant	: Charges: : Murder (1 st Degree) (1 Count) :
INFO	RMATION
	for court by the Court following a Preliminary County by this Information charges that, on (or
about) September 12, 20	14, in said County,
HARPER MARMALARD ,	
First Count:	
did intentionally cause the death of Mandy F	Pepperidge;
Against the Act of Assembly and the Pennsylvania.	Peace and Dignity of the Commonwealth of
	/s/ Mohammed Jugdish Mohammed Jugdish Assistant District Attorney
Citation(s): FIRST DEGREE MURDER,	18 Pa.C.S.A. § 2502(a))
Clerk of Courts – Original	

COMMONWEALTH OF PENNSYLVANIA	: COURT OF COMMON PLEAS OF THE : 61 st JUDICIAL DISTRICT, PENNSYLVANIA
v.	: Docket No.: <u>CP-51-CR-71499-2014</u>
: HARPER MARMALARD, Defendant	: Charges: : Murder (1 st Degree) (1 Count) :
Arra	aignment
	dvised by the District Attorney of Kalmia County, tion with Murder in the First Degree (18 Pa.C.S.A. §
I have been advised of my right to ha trial of these charges.	ave an attorney represent me at all hearings and the
	stand that I/my lawyer have/has the right to request rney within fourteen (14) days of today's date.
	rstand that I/my lawyer have/has the right to file with n the form of a single omnibus pre-trial motion within
I hereby enter a plea of	<i>Not Guilty</i> to the above charges and
request a trial by Tury	. Trial is scheduled for the February 2015
Term of Criminal Court. I we be indicted, rather than proceeding	waive [waive/do not waive] my right to under this Information.
Date: December 13, 2014	<u>Harper Marmalard</u>
	Defendant
	/s/ Sydney Clayton Attorney for Defendant
	/s/ Mohammed Jugdish Attorney for the Commonwealth

Clerk of Courts - Original

COMMONWEALTH OF PENNSYLVANIA: COURT OF COMMON PLEAS OF THE

: 61st JUDICIAL DISTRICT, PENNSYLVANIA

:

v. : Docket No.: <u>CP-51-CR-71499-2014</u>

:

: Charges:

HARPER MARMALARD, : Murder (1st Degree) (1 Count)

Defendant :

Memorandum and Opinion

Defendant Harper Marmalard moves to dismiss the Information charging her/him with Murder in the First Degree in contravention of 18 Pa.C.S.A. § 2502(a). Defendant argues that the Information and the evidence against her/him in this matter are insufficient to show that her/his acts caused the death of Mandy Pepperidge. The Court denies defendant's motion, and the matter will proceed to trial.

The defendant's attack on the charges is threefold. First, defendant argues that the nature of Pepperidge's death is such that no reasonable juror could conclude that Marmalard's actions caused it, and thus that her/his actions fulfill the requirements, at most, of third degree (malice) homicide. Second, relatedly, defendant argues that a fall from a height of fifteen to twenty-five feet¹ could not reasonably have been foreseen to cause death, and thus that s/he cannot be guilty of first degree murder. Third, defendant argues that s/he could not have known where Pepperidge would climb, and thus could not have foreseen this death.

None of these arguments is availing. The Commonwealth alleges that Marmalard intentionally created the circumstances in which Pepperidge died by directing Pepperidge to a physical location – the famous Paifang arch on Kalmia University's campus – and by directing Pepperidge to take an action – what the Court understands is something called "planking" – that could only occur on a small portion of the arch. The Commonwealth further alleges that Marmalard took affirmative steps to ensure that Pepperidge would fall, including infesting the arch with aggressive termites that weakened the structure.

For purposes of this decision, the Court must draw all inferences in favor of the Commonwealth. The Court notes that, notwithstanding the defendant's argument, the dangers of falling from a height as low as eighteen feet are quite substantial. In a Center for Disease Control study of approximately 90 fatal falls, more than a third were from heights of less than 15 feet, and almost half were falls of 25 feet or less. Moreover, the circumstances of this fall – its suddenness, its unexpectedness, and the fact that no safety precautions were being used to ensure that Pepperidge could be caught or would fall feet-first – mitigate the force of defendant's claims.

The precise height of Pepperidge's fall is unknown. The record indicates that she was climbing to a point approximately twenty-four feet above the ground, and she was well off the ground, according to eyewitness reports. One witness even placed her a foot or two above the "planking" point, the better to climb down onto it.

By way of analogy, were Marmalard accused of digging a twenty-five foot pit with a concrete floor, and then covering it over so that Pepperidge would tumble into it, or of removing all the support screws on a guard rail at the top of a twenty-foot wall so that Pepperidge would fall to her death, there would be no question that such charges could succeed. The exotic nature of this scheme may make it more complex, but the law on point is simple and direct.

The Court does *not* offer any opinion on whether the Commonwealth can actually prove the case it claims it can make, or whether the Commonwealth can show that death was intended. Perhaps a more cautious prosecutor would have charged murder in the third degree as well. But if the Commonwealth makes the showings it posits it will, a reasonable jury *could* conclude that Defendant Marmalard turned the ancient structure into an exotic and deadly trap. Under those circumstances, the case must be permitted to proceed to jury.

The Court offers no opinion on the merits of the case or the wisdom of the aggressive charge that the Commonwealth has brought. The former is a question for the jury; the latter is a question for the people.

/ / /	
/s/ Ivan J. Reitman	
DEITMANI IVANI I	
REITMAN, IVAN J.	

BY THE COURT:

COMMONWEALTH OF PENNSYLVANIA: COURT OF COMMON PLEAS OF THE

: 61st JUDICIAL DISTRICT, PENNSYLVANIA

:

v. : Docket No.: <u>CP-51-CR-71499-2014</u>

:

: Charges:

HARPER MARMALARD, : Murder (1st Degree) (1 Count)

Defendant :

Stipulations

1. All documents, signatures, and exhibits, including pre-markings, included in the case materials are authentic and accurate in all respects; no objections to the authenticity of the documents will be entertained. The parties reserve the right to dispute any legal or factual conclusions based on these items and to make objections other than to authenticity.

- 2. Jurisdiction, venue, and chain of custody of the evidence are proper and may not be challenged.
- 3. All statements were notarized on the day on which they were signed.
- 4. All evidence was constitutionally recovered and all statements were constitutionally obtained. No objection will be entertained to the constitutionality of any evidence, nor will any motions to suppress on constitutional grounds be permitted.
- 5. Defendant Harper Marmalard has waived her/his rights against self-incrimination under the Fifth Amendment to the United States Constitution, and either party may refer to Marmalard's decision to testify in opening.
- 6. Mandy Pepperidge was alive on September 12, 2014.
- 7. Mandy Pepperidge was killed nearly instantly when she fell from the Paifang arch at Kalmia University on September 12, 2014. The cause of her death was the fall from a height greater than 15 feet which broke her neck and collapsed a portion of her skull.
- 8. Alex Otter, Dana Stork, Harper Marmalard, and Corin Boon were all interviewed by Kalmia County Policy in preparing Exhibit 5. All gave statements consistent with their affidavits in all respects.
- 9. The report of Zillias Structural Engineering was prepared at the request of Kalmia University, which was following its standard procedure for investigating whether deaths at the University were preventable, and was obtained by Kalmia County Police from the University.
- 10. Harper Marmalard pleaded guilty to Hazing, a third-degree misdemeanor violation of 24 Pa. C.S. § 5353. Hazing is defined by Section 5352 of the statute as "Any action or situation which recklessly endangers the mental or physical health or safety of a student..." The specific example charged was the "cinnamon challenge" incident. S/he was sentenced to

one year of imprisonment, which was suspended and would be eliminated if s/he completed three months' probation, 360 hours of community service, and paid a \$2000 fine.

- 11. Exhibits 1-2 were subpoenaed by Kalmia County Police from Zeta lota Pi. Each ZIP member is given a copy of these documents when s/he pledges ZIP, and each member's documents are updated periodically by mail or email when policies are modified or when new policies are passed by the ZIP board of directors.
- 12. Exhibit 3 was obtained from the personal computer of Mandy Pepperidge by Kalmia Police Forensics on September 17, 2014. It was stored in the memory of that computer, and it had been last visited September 11, 2014 at 9:35:42 p.m. The original website was also reviewed, and the page from Pepperidge's computer is accurate to what it would have displayed at that time on that day.
- 13. Exhibit 4 was taken by Alex Otter in the presence of Mandy Pepperidge.
- 14. Exhibit 5 is the Report of Investigation prepared by the Kalmia County Police. It is admissible by any party without further foundation.
- 15. Exhibit 10 was retrieved by Kalmia County Police personally, in the form attached, from the Kalmia University Entomology lab which is responsible for keeping the records of laboratory experiments in addition to the student researcher or faculty/staff primary investigator. The records were kept by the University electronically and were date stamped whenever modified. Their procedural compilation and accuracy have been confirmed by the Dean of the Kalmia College of Sciences.
- 16. The Commonwealth of Pennsylvania is not pursuing the death penalty in this action.
- 17. Drew Pinto and Lane Dorfman are experts in entomology and wood-boring insects. They may be deemed experts in other fields, as may other witnesses in those or other fields, if proper foundation is laid.
- 18. The following definition is stipulated. It is further stipulated that this is the meaning of "planking" intended by the witnesses in their statements. Planking (or the Lying Down Game) is an activity consisting of lying face down—sometimes in an unusual or incongruous location. Both hands must touch the sides of the body. Some players compete to find the most unusual and original location in which to play. The term planking refers to mimicking a wooden plank. Planking can include lying flat on a flat surface, or holding the body flat while it is supported in only some regions, with other parts of the body suspended. Many participants in planking have photographed the activity in unusual locations and have shared such pictures through social media. (http://en.wikipedia.org/wiki/Planking_(fad))

/s/ Mohammed Jugdish
Assistant District Attorney

/s/ Sydney Clayton
Defendant's Attorney

Date: December 17, 2014

Applicable Law

Applicable Statutes

18 Pa.C.S.A. § 2502. Murder.

- (a) Murder of the first degree.--A criminal homicide constitutes murder of the first degree when it is committed by an intentional killing.
- (b) Murder of the second degree.--A criminal homicide constitutes murder of the second degree when it is committed while defendant was engaged as a principal or an accomplice in the perpetration of a felony.
- (c) Murder of the third degree.--All other kinds of murder shall be murder of the third degree. Murder of the third degree is a felony of the first degree.

Jury Instructions

At the conclusion of a jury trial, the judge will instruct the jury how to apply the law to the evidence. Hypothetically, if the judge in your mock trial case were to provide instructions to the jury, they would look something like the following:

[Please note: A copy of these instructions may not be used as an exhibit during the mock trial competition; however, students may use these concepts in fashioning their case and making arguments to the jury.]

1. Role of Jury.

Members of the jury, you have seen and heard all the evidence and the arguments of the lawyers. Now I will instruct you on the law.

You have two duties as a jury. Your first duty is to decide the facts from the evidence that you have heard and seen in court during this trial. That is your job and yours alone. I play no part in finding the facts. You should not take anything I may have said or done during the trial as indicating what I think of the evidence or what I think about what your verdict should be.

Your second duty is to apply the law that I give you to the facts. My role now is to explain to you the legal principles that must guide you in your decisions. You must apply my instructions carefully. Each of the instructions is important, and you must apply all of them. You must not substitute or follow your own notion or opinion about what the law is or ought to be. You must apply the law that I give to you, whether you agree with it or not.

Whatever your verdict, it will have to be unanimous. All of you will have to agree on it or there will be no verdict. In the jury room you will discuss the case among yourselves, but ultimately each of you will have to make up his or her own mind. This is a responsibility that each of you has and that you cannot avoid.

Perform these duties fairly and impartially. Do not allow sympathy, prejudice, fear, or public opinion to influence you. You should also not be influenced by any person's race, color, religion, national ancestry, or gender

2. Jury sole judge of facts; sympathy or prejudice not to influence verdict.

You are the sole judges of the facts in this case. It is your duty to determine the facts from the evidence produced here in court. Your verdict should not be based on speculation, guess, or conjecture. Neither sympathy nor prejudice should influence your verdict. You are to apply the law as stated in these instructions to the facts as you find them, and in this way decide the case.

Although the lawyers may have called your attention to certain facts or factual conclusions that they thought were important, what the lawyers said is not evidence and is not binding on you. It is your own recollection and interpretation of the evidence that controls your decision in this case. Also, do not assume from anything I may have done or said during the trial that I have any opinion about any of the issues in this case or about what your verdict should be.

3. Credibility of witnesses.

As I stated in my preliminary instructions at the beginning of the trial, in deciding what the facts are you must decide what testimony you believe and what testimony you do not believe. You are the sole judges of the credibility of the witnesses. Credibility refers to whether a witness is worthy of belief: Was the witness truthful? Was the witness' testimony accurate? You may believe everything a witness says, or only part of it, or none of it.

You may decide whether to believe a witness based on his or her behavior and manner of testifying, the explanations the witness gave, and all the other evidence in the case, just as you would in any important matter where you are trying to decide if a person is truthful, straightforward, and accurate in his or her recollection. In deciding the question of credibility, remember to use your common sense, your good judgment, and your experience.

In deciding what to believe, you may consider a number of factors:

- (1) The opportunity and ability of the witness to see or hear or know the things about which the witness testified:
- (2) The quality of the witness' knowledge, understanding, and memory;
- (3) The witness' appearance, behavior, and manner while testifying;
- (4) Whether the witness has an interest in the outcome of the case or any motive, bias, or prejudice;
- (5) Any relation the witness may have with a party in the case and any effect the verdict may have on the witness;
- (6) Whether the witness said or wrote anything before trial that was different from the witness' testimony in court;
- (7) Whether the witness' testimony was consistent or inconsistent with other evidence that you believe; and
- (8) Any other factors that bear on whether the witness should be believed.

Inconsistencies or discrepancies in a witness' testimony or between the testimony of different witnesses may or may not cause you to disbelieve a witness' testimony. Two or more persons witnessing an event may simply see or hear it differently. Mistaken recollection, like failure to recall, is a common human experience. In weighing the effect of an inconsistency, you should also consider whether it was about a matter of importance or an insignificant detail. You should also consider whether the inconsistency was innocent or intentional.

You are not required to accept testimony even if the testimony was not contradicted and the witness was not impeached. You may decide that the witness is not worthy of belief because of the witness' bearing and demeanor, or because of the inherent improbability of the testimony, or for other reasons that are sufficient to you.

After you make your own judgment about the believability of a witness, you can then attach to that witness' testimony the importance or weight that you think it deserves.

The weight of the evidence to prove a fact does not necessarily depend on the number of witnesses who testified or the quantity of evidence that was presented. What is more important than numbers or quantity is how believable the witnesses were, and how much weight you think their testimony deserves.

4. Presumption of innocence; reasonable doubt; burden of proof.

The defendant, Harper Marmalard, pleaded not guilty to the offense charged. The Defendant is presumed to be innocent. S/he started the trial with a clean slate, with no evidence against her/him. The presumption of innocence stays with Harper Marmalard unless and until the government has presented evidence that overcomes that presumption by convincing you that Harper Marmalard is guilty of the offense charged beyond a reasonable doubt. The presumption of innocence requires that you find Harper Marmalard not guilty, unless you are satisfied that the government has proved guilt beyond a reasonable doubt.

The presumption of innocence means that Harper Marmalard has no burden or obligation to present any evidence at all or to prove that s/he is not guilty. The burden or obligation of proof is on the government to prove that Harper Marmalard is guilty and this burden stays with the government throughout the trial.

In order for you to find Harper Marmalard guilty of the offense charged, the government must convince you that Harper Marmalard is guilty beyond a reasonable doubt. That means that the government must prove each and every element of the offense charged beyond a reasonable doubt. A defendant may not be convicted based on suspicion or conjecture, but only on evidence proving guilt beyond a reasonable doubt.

Proof beyond a reasonable doubt does not mean proof beyond all possible doubt or to a mathematical certainty. Possible doubts or doubts based on conjecture, speculation, or hunch are not reasonable doubts. A reasonable doubt is a fair doubt based on reason, logic, common sense, or experience. It is a doubt that an ordinary reasonable person has after carefully weighing all of the evidence, and is a doubt of the sort that would cause him or her to hesitate to act in matters of importance in his or her own life. It may arise from the evidence, or from the lack of evidence, or from the evidence.

If, having now heard all the evidence, you are convinced that the government proved each and every element of the offense charged beyond a reasonable doubt, you should return a verdict of guilty for that offense. However, if you have a reasonable doubt about one or more of the elements of the offense charged, then you must return a verdict of not guilty of that offense.

5. Nature of the Information

As you know the Defendant, Harper Marmalard, is charged in the information with violation of state law, specifically Murder in the First Degree. The information is just the formal way of specifying the exact crime the defendant is accused of committing. As the information is simply a description of the charge(s) against the defendant, it is an accusation only. An information is not evidence of anything, and you should not give any weight to the fact that Harper Marmalard has been charged in making your decision.

6. Murder - First Degree. (Based upon 18 Pa.C.S.A. § 2502(a))

The defendant has been charged with the offense of first-degree murder. First-degree murder is a murder in which the perpetrator has the specific intent to kill. To find the defendant guilty of this offense, you must find that the following three elements have been proven beyond a reasonable doubt:

First, that Mandy Pepperidge is dead;

Second, that the defendant intended to kill her by acting; and

Third, that her death was caused by the actions defendant intended to kill her.

A person has the specific intent to kill if he or she has a fully formed intent to kill and is conscious of his or her own intention. The specific intent to kill needed for first-degree murder does not require planning or previous thought or any particular length of time. It can occur quickly. All that is necessary is that there is time enough so that the defendant can and does fully form an intent to kill and is conscious of that intention.

When deciding whether the defendant had the specific intent to kill, you should consider all the evidence regarding her/his words and conduct and the attending circumstances that may show her/his state of mind.

7. Jury must not consider penalty.

You must not concern yourself with the consequences of your verdict.

8. Role of Jury – Deliberations; Unanimous Verdict, Duty to consult.

That concludes my instructions explaining the law regarding the testimony and other evidence, and the offenses charged. Now let me explain some things about your deliberations in the jury room, and your possible verdicts.

First, the first thing that you should do in the jury room is choose someone to be your foreperson. This person will speak for the jury here in court. He or she will also preside over your discussions. However, the views and vote of the foreperson are entitled to no greater weight than those of any other juror.

Second, I want to remind you that your verdict, whether it is guilty or not guilty, must be unanimous. To find Harper Marmalard guilty of an offense, every one of you must agree that the government has overcome the presumption of innocence with evidence that proves each element of that offense beyond a reasonable doubt. To find Harper Marmalard not guilty, every one of you must agree that the government has failed to convince you beyond a reasonable doubt.

Third, if you decide that the government has proved Harper Marmalard guilty, then it will be my responsibility to decide what the appropriate punishment should be. You should never consider the possible punishment in reaching your verdict.

Fourth, as I have said before, your verdict must be based only on the evidence received in this case and the law I have given to you. You should not take anything I may have said or done during trial as indicating what I think of the evidence or what I think your verdict should be. What the verdict should be is the exclusive responsibility of the jury.

Fifth, now that all the evidence is in, the arguments are completed, and once I have finished these instructions, you are free to talk about the case in the jury room. In fact, it is your duty to talk with each other about the evidence, and to make every reasonable effort you can to reach unanimous agreement. Talk with each other, listen carefully, and listen respectfully to each other's views and keep an open mind as you listen to what your fellow jurors have to say. Do

not hesitate to change your mind if you are convinced that other jurors are right and that your original position was wrong. But do not ever change your mind just because other jurors see things differently or just to get the case over with. In the end, your vote must be exactly that-your own vote. It is important for you to reach unanimous agreement, but only if you can do so honestly and in good conscience. Listen carefully to what the other jurors have to say and then decide for yourself if the government has proved the defendant guilty beyond a reasonable doubt.

No one will be allowed to hear your discussions in the jury room and no record will be made of what you say. You should all feel free to speak your minds.

Sixth, once you start deliberating, do not talk about the case to the court officials, or to me, or to anyone else except each other. If you have any questions or messages, your foreperson should write them down on a piece of paper, sign them, and then give them to the court official who will give them to me. I will first talk to the lawyers about what you have asked, and I will respond as soon as I can. In the meantime, if possible, continue with your deliberations on some other subject.

One more thing about messages. Do not ever write down or tell anyone how you or anyone else voted. That should stay secret until you have finished your deliberations. If you have occasion to communicate with the court while you are deliberating, do not disclose the number of jurors who have voted to convict or acquit on any offense.

COMMONWEALTH OF PENNSYLVANIA	: COURT OF COMMON PLEAS OF THE : 61 st JUDICIAL DISTRICT, PENNSYLVANIA
v.	: : Docket No.: <u>CP-51-CR-71499-2014</u>
HARPER MARMALARD, Defendant	: Charges: : Murder (1 st Degree) (1 Count) :
Ver	dict Form
To the jury:	
following verdict form. At the conclusion of	by the trial judge, you are being provided with the your deliberations, one copy of this form should be ne court clerk. This will constitute your verdict.
Question 1:	
Do you find that the Commonwealth has Harper Marmalard intentionally caused	s proven beyond a reasonable doubt that defendant the death of Mandy Pepperidge?
Yes No	
You have finished your deliberations	s. Please sign at the bottom of this form.
Please return to the courtroom.	
Jury Foreperson	

List of Witnesses

The prosecution and the defendant must call each of their respective witnesses. Harper Marmalard is permitted to sit at counsel table as the Defendant.

For the Commonwealth of Pennsylvania:

• Alex Otter: ZIP Pledge and friend of the deceased

• Corin Boon: ZIP Alum and Former Kalmia University Professor

• **Drew Pinto:** Expert Witness

For the Defendant, Harper Marmalard:

• Harper Marmalard: Defendant and former President of Kalmia University ZIP Chapter

• Dana Stork: ZIP Pledge

• Lane Dorfman: Expert Witness

Pronunciation Guide

- Kalmia (kahl-me-uh)
- Alex Otter (al-ecks ät-ter)
- Corin Boon (kär-in bün)
- Drew Pinto (drü pin-to)
- Harper Marmalard (hahr-pur mar-muhl-ahrd)
- Dana Stork (day-nuh stärk)
- Lane Dorfman (lan därf-mahn)
- Paifang (pay-fahng)
- Coptotermes formosanus (kohp-to-tuhr-mez fär-mo-sahn-uhs)
- Dionaea muscipula (di-o-nay-uh mu-sih-pyü-luh)
- Formosan (fär-mo-sihn)
- Pediculus humanis captis (pehd-ih-kü-luhs hü-mahn-his kahp-tihs)
- Reticulitermes flavipes (reh-tick-yü-li-tuhr-mez flah-vih-pez)
- Toxicodendron vernicifluum (täcks-ih-ko-dehn-drän vuhrn-ih-si-flüm)
- Xylophagy (zi-lo-fahj-e) or (zi-lo-fa-ge)

Statement of Alex Otter

My name is Alex Otter and I am about to join Penn State University as a freshman this January. Prior to enrolling at PSU, I was enrolled at Kalmia University, you know, the elite school in the Poconos. Kalmia was supposed to be the school to prepare me for the future – that was before Harper Marmalard took it all away from me and killed my only real friend at Kalmia, Mandy Pepperidge. Kalmia was my dream school – a Top Ten that would ensure my future and finally get me into some financial security, a place my parents would never have imagined we could go. Now all that's left are the nightmares.

You have to understand that I come from a blue collar family that was focused on school. Growing up, my parents always told me I was going to be the first person from our family to go to college. If I wanted to make that happen, I needed to work hard and earn a scholarship. Unlike Mandy or Dana Stork, the two other ZIP pledges from this year, I was not born with a silver spoon in my mouth. I had to earn every dime I spent. I was ok with that, as long as I was in control. Now I'm just another victim of Harper Marmalard.

I graduated from Bethel Park High School outside of Pittsburgh, Pennsylvania. In high school, I was not only a straight A student, but I was active in school activities. I was the treasurer of the student science club, the captain of our high school mock trial team, part of the student musical, a volunteer at the Children's Hospital, and president of the National Honor Society. Ultimately, I graduated 1st in my high school class and I had done it all on my own. But I wasn't perfect. When I was a freshman in high school, I stole some DVDs from a store, so I would have a Christmas present for someone I was dating. I felt so guilty about it that I ended up going back to the store and confessing. The police were called, but because I returned the item, nothing happened.

I want to do something in chemistry, and Kalmia is recognized as one of the best schools in the nation for science. Kalmia also has a large Greek life, as well as world renowned honors organizations. This was important to me because I wanted to continue my community service work in college. The day I found out I got a full merit scholarship to Kalmia was the happiest day of my life. I literally pinched myself. I had arrived at the doorstep of success and respect.

I knew that going to Kalmia was going to be hard because I came from a different background than most of the other students. They were "silver spooners", and I was a steel spork. I needed something that was going to make me stand out above just being a straight A student. That is how I became interested in Zeta lota Pi, also known as "ZIP", a co-ed honor society. ZIP was for the best of the best, and it was a one-way ticket to the top flights of society. Just look at ZIP's alumni - two U.S. Presidents, twelve current members of Congress, six Fortune 500 CEOs, and world leaders in every area of industry and science. Plus, Zippers always help each other succeed. You can imagine my disappointment when I found out that ZIP doesn't take applications – you have to be selected, or "tapped" as ZIP calls it. With 538 students in the freshman class, I thought, what were my chances? So, you can imagine my excitement when I was tapped on the first day of classes for freshmen – August 18, 2014! Harper Marmalard, then ZIP president and pledge master selected me – 1 of 3 freshmen! I accepted immediately, without question or hesitation.

As with any prestigious organization, just accepting the invitation was not enough. ZIP required pledges to do a series of "challenges" – which it called "The Feats of Fortitude." The idea was to build camaraderie and separate out anyone with weak resolve. The Feasts of Fortitude were not supposed to be hazing, but that doesn't mean they were meant to be easy either. The law,

Kalmia school policy, and most importantly, the ZIP bylaws prohibited hazing, so there was a bit of a tightrope walk to it, but I knew I could handle it. Most of the challenges were fun activities, many having a community service focus, which I loved. For instance, we were told that the 2013 Pledge Class organized a carnival in the center of campus where all of the money raised was donated to the homeless victims of some horrible crane accident in Philadelphia. And let's face it, this was my choice. You didn't have to do the challenges if you didn't want to pledge, and being a ZIP was an honor, not for everyone.

Our pledge class – which was Dana Stork, Mandy Pepperidge, and myself – all moved into the ZIP house on August 20, 2014. That day we also met with Harper and the other ZIP leaders. At that point, we were given the ZIP bylaws and required to sign the Pledge Promise. Mandy and I hit it off from the start. We were both serious about science, and I could tell she was really, really smart. Dana was different. Dana's older brother, Chip, was a former Zipper who graduated in 2012 – so s/he was a legacy. I couldn't believe that an organization like ZIP would take Dana just because of what someone else did or who someone else was. But I live in the real world, too. Privilege is as privilege does. I'm not saying Dana wasn't smart, but s/he by no means came across as a serious academic. I was a bit jealous, because despite the obvious differences in talent, from day one it was clear that Harper liked her/him most of all. S/he got all kinds of perks Mandy and I never got. For instance, s/he was given a better room and didn't have to serve Harper each morning at 6am like we did. People like her/him and Harper are exactly what's wrong with this world.

During the first meeting, we also learned about this year's Feats of Fortitude challenges. The focus would be new spins on social media crazes. First up – the Ice Bucket Challenge. Our challenge was to work together and come up with something novel – and that is exactly what we did. We "got into" the athletic department, thanks to the Athletic Director, a Zipper from the Class of '86, stood in a whirlpool full of ice, and dumped little dixie cups of water on our heads. We even had a banner that said "We Stick Together" – the ZIP slogan! It was great. When posted the video on the ZIP Facebook page, Zippers from all across the country began donating money to ALS research. Zippers gave over \$25,000 in donations in one week thanks to our video. It was doubly great because the ALS foundation's CEO is a Zipper from '75, and she sent us a personal thank-you.

We all bonded that day as well. Even though I thought Dana was a brat, there was some benefit to having her/him in our pledge class. Dana was all too fast to try and impress us and starting spilling dirt on the other Zippers – especially Harper. It turns out Harper was a legacy him/herself going back several generations, and her/his father gave a lot of money to ZIP. But apparently Harper was a horrible student. According to Dana, Chip was constantly bailing Harper out so that s/he did not get thrown out of the Zippers. I mean, it figures, right? People like Harper always seem to get things handed to them. Dana also let it slip that Harper told Dana that s/he could get Dana into a class that was a guaranteed A. At the time I just assumed Dana was being boastful. Whatever it was, it made me kind of hate Harper even more. I know I was supposed to respect the pledge master and all, but all I could think was that Harper was pure slime. My assumption was right, it is just too bad I didn't act on gut and get out while I could've.

On August 25, 2014, we were given our second challenge – create a Harlem Shake video that highlighted what it meant to be a Zipper. Again we tried to come up with something clever, but this time we struggled. So we sought out Harper's help. Harper suggested we go down into the ZIP academic archives to see if we had any inspiration. The archives contained all of the academic work Zippers had done over the years – sort of a personal society library. It is a

powerful place and it did give us a great idea as well as a mountain full of unintended consequences. The plan was to have all of the Zippers in the archives studying. When the beat dropped, everyone would start dancing uncontrollably and throwing paper. Of course, it would be blank paper, because we didn't want to harm the archives. When we told her/him about our plan, Harper was very specific about not touching the files. S/He said something about how they were the crown jewels of ZIP. That makes more sense now. To make it funny, we decided it would be cool to have the senior Zippers dressed in suits or dresses, with sunglasses, while we pledges would be dressed like babies. Everything was set for August 28th.

Again, our second video was a success. When it was over, the pledges were told we had to clean up while the other Zippers went to a social at the Student Union. I guess I should say it was not the pledge class – it was Mandy and me that had to clean up. Dana, of course, got special treatment from Harper. While cleaning up, Mandy found a folder labeled "Paper Classes Spring 2013." At first, we thought it was just a file out of place, so Mandy wanted to get it put away properly. To do so, she had to see what was inside. What she found shocked both of us. It was a series of midterm papers – no more than a few hundred words each – for a class called Botany 301. It appeared that this class was only taught by a post-doc named Corin Boon. A post-doc is basically a young professors, only without the title, and they often teach advanced classes to undergraduates. What was strange was that none of the papers were any good – and the worst of them was written by Harper! It was about the virtues of milkweed as an elixir. The thing was a disaster: no critical thought, no research at all, no citations, no anything, really. The fact that Harper wrote such a bad paper was not the worst part – the worst part was that s/he got an A-. I took a photo with my phone for the pure comic value.

Mandy and I decided to bring it to Harper's attention so that someone didn't get the wrong idea. Even Harper could not be that lucky to get an A- for this terrible paper. The next morning we reported for our service duty at Harper's room. That was when things changed. When Mandy showed Harper the file, s/he got very defensive. S/he snapped at both of us, saying every honor society has its secrets. S/he even threatened us – saying that if we were worthy, we would find out, but if not, we will zip you up. Harper then ripped the file from Mandy's hands and proceeded to shake it in our faces. S/He had a crazed look in her/his eyes and was very intimidating when s/he got angry. Harper yelled at us and told us to get out.

Mandy and I were pledges; we did not know what to do. We did sign a promise to follow Harper throughout the pledge period. Clearly, the file was something more than what we originally believed. We didn't comprehend that it was a massive scandal at the time, but we knew it wasn't a prank. This was proper and blatant cheating. We realized that Dana wasn't just being boastful when s/he said that Harper was getting a helping hand. Mandy felt we needed to let Harper cool down and then we should approach her/him again. S/He didn't want to blow the whistle, but wanted to give Harper a chance to really explain. I didn't care about that, but I wasn't about to risk my place in ZIP on a hunch. We both decided to wait out of respect for the pledge process and the fact that Harper controlled our ZIP destiny.

A few mornings later on Sunday, August 31, Mandy woke up with bug bites all over her/his body. It turned out that Mandy's bed was infested with bedbugs. I know that bedbugs are not terribly uncommon on a college campus, but the timing seemed odd. It also seemed odd that only Mandy's bed seemed to have them. Normally they spread, but this was completely isolated. No one else at the ZIP house or anywhere else on campus reported an infestation. As I helped Mandy get rid of her mattress, we discussed whether we thought Harper was hazing her/him. There was no other logical conclusion, especially considering the fact that Harper was an entomology major. I mean, entomology is the study of bugs after all! That's when I knew we

had crossed a line with that stupid milkweed paper and if we didn't watch out, we would find ourselves out of ZIP completely. The thought of that really bothered both Mandy and me. She wanted to confront Harper, figuring that getting this all out in the air was the only way it would stop. At this point, I was kind of used to following Mandy's lead. So that afternoon, Mandy and I went Harper's room where she accused Harper of hazing by putting bedbugs in her bed. She told her/him that was hazing not only against the law, but against school policy – as well as the ZIP bylaws. Harper's response was a bit unnerving – s/he told Mandy that "it was better to have a few bug bites than maggots gnawing at your flesh." We all knew that Harper was really into bugs, but that was nothing short of grotesque and, well, frightening.

Soon thereafter, we got the third Feat – a cinnamon challenge. The Zippers all gathered in the house on September 4, 2014 to see what Harper called a "spectacle." Harper said that Mandy had to eat three teaspoons of cinnamon because she did a bad job cleaning after the last challenge, but Dana and I only had to eat one. That didn't make sense, because Mandy and I did the cleaning together. Then Harper upped the discomfort aimed at Mandy by refusing to allow her to have any water to wash down the cinnamon. Almost immediately, we all began to cough, sneeze, and wheeze. It was impossible to breathe. Huge plumes of brown clouds filled the room. It was horrible – even painful. The conditions were even worse for Mandy. The extra cinnamon made her go into a massive asthma attack. When I realized what was happening, and was able to speak, I said I was taking her to the hospital. Harper insisted that s/he go too. I was furious at Harper, but s/he did have a car.

While I wanted to confront Harper about what s/he did, I bided my time. Once Mandy was with the doctor at United General Hospital and we were told that Mandy's condition had stabilized, I saw my opportunity. I told Harper that I knew s/he was trying to hurt Mandy with her/his stunts. Harper coolly looked at me and, without denying what s/he did, and said "maybe she won't be such a cockroach from now on. Who knew cinnamon could be used as a pesticide?" Harper then looked me right in the eyes and said "this is your friend's last warning and if you aren't careful, you will be on my list as well." I was starting to think that Harper was really dangerous. When Mandy was released, she laughed it off. I knew Mandy was just trying to show that she had the fortitude to make it as a Zipper, but I was uncomfortable around Harper. We drove back to the ZIP house with an unnerving silence around us.

 The next morning, I filled Mandy in on Harper's latest threats. My reaction was to quit and let the well-off have their special privileges. I could see the price of joining their little club was much more than a few days of juvenile stunts. But Mandy was such a strong person: she was not going anywhere. Mandy decided that she was going to push back. Mandy sent an email to Harper that pretty much told it like is. If Harper wasn't going to stop threatening us, Mandy was going to let the world know what was going on. Mandy copied me on it. I was appalled when Harper responded with something like "you didn't die this time." I kept that email, and I later turned it over to the police.

I know that Mandy meant every word. She was going to take action. On the evening of September 11th, Dana and I walked in on Mandy reading the ZIP's affirmative statement against pledge hazing on the national website. I believe Mandy was going to finally turn Harper in – something I very much supported. Dana made it clear doing that was like stabbing Harper in the back. Dana said that if we wanted to "be part of the world s/he came from we had to learn to keep our mouths shut." I knew the two of them, Dana and Harper, were in it together.

The next day, Harper gathered Dana, Mandy, and me for the final challenge in the Feat of Fortitude - planking. Looking back now, that meeting was surreal. Everybody was acting like

nothing had happened. We even joked about the famous New Zealander who died planking in 2011. But, it wasn't a joke, it was one final warning. One that I wish we, Mandy and I, had realized.

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Harper gave each of us a location on campus that s/he specifically selected for us to plank. I was supposed to creatively plank at the Student Union. Dana was to plank at the football stadium. Mandy was to plank at the Friendship Paifang given to Kalmia from our sister school, Poeny University in China. I didn't know much about the Friendship Paifang, but I know it was a wooden gate that was really old and stood out like a sore thumb among the rest of the campus's red brick buildings. But it's really important, especially to the older generations. It's like a unifying symbol of how old and powerful and elite Kalmia is. It was also like 30ft tall or something. Before the meeting ended, Harper reminded us that this was the final challenge so we had to make it good, just like it said in our pledge promise.

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We set out that night to do the final challenge. I planked on the railing of the stairs leading into the Union. Nothing original, but I was at the top of the three flights, so even though it wasn't dangerous, it seemed like it. Dana, in an effort to outdo me, shimmied up the goalpost and planked there. It looked cool, but was pretty risky if you ask me. Finally, it was Mandy's turn. When we arrived at the *Paifang*, it was clear this location was going to be challenging. The gate had narrow legs and an ornamental top. Frankly, there was nowhere for Mandy to plank except for the very top of the darn thing. I pleaded with her to just plank beneath it and let it go. Dana, however, told her that was lame and that she had to excel to be a Zipper, egging her on to do something "extraordinary." Mandy got that look in her eyes – she would not be outdone.

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With a boost from Dana and me, Mandy started climbing to the top of the gate. The higher Mandy went, the more the *Paifang* began to creak, but Mandy was determined. The entire time, Dana kept taunting her, pushing her higher and higher. At one point Dana even said, "do it, you show Harper you've got true fortitude." I, on the other hand, pleaded with her to come down. I was afraid something was going to happen and something did. I remember it clearly. Time moved very slowly. As Mandy slid into place, she started to giggle. She said that there were a ton of bugs all over the *Paifang*. I turned to Dana, to try and get her/him to agree that this was crazy. Then I heard that awful sound. There was a loud crack, and the entire part of the Paifang where Mandy was climbing just snapped off. Mandy screamed. I turned my head and shut my eyes. She had to have been at least 25ft off the ground. I heard her head hit the ground, and I could hear the awful sounds of her spine shattering. I was silent. Dana gasped. She was gone the moment she hit. I'm sure of that.

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The rest of my time at Kalmia was filled with police, reporters and constant badgering from the rest of the students. Not only was Mandy dead because of Harper, but my life was ruined too! I could no longer stay at Kalmia. The pain was too great. I transferred to Penn State, and I stayed as far as possible from anything with a Greek letter on it. I finally escaped from Harper, but I hope s/he does not escape justice.

Alex Otter Signature

<u>December 8, 2014</u> DATE

Statement of Corin Boon

My name is Corin Boon and I used to teach at Kalmia University. Of course, that was before the prosecutors decided I was some kind of *dionaea muscipula*, or as it's more commonly referred to, Venus flytrap. The prosecutor actually suggested that I was part of the sticky trap that got Mandy Pepperidge caught in Harper Marmalard's master plan. So, I took a deal to avoid criminal charges by testifying against Harper, but that's not the reason I'm here. I'm testifying because if anyone was a carnivore in this whole debacle it was Harper Marmalard, and s/he needs to be brought to justice.

I guess I should explain. I'm a botanist and a life-long plant enthusiast. My parents are both geologists, and when I was younger we would drive from quarry to quarry, stopping for just long enough for my parents to get their fill of geodes. It was a pretty lonely way to grow up, especially since we never stayed in one place long enough for me to make a lot of friends. A lot of times when my parents were knee-deep in dirt arguing over whether or not their latest acquisition was igneous or sedimentary, I would examine the native plants that surrounded their dig sites. I would make little terrariums and take them on the road in the RV with us. I got used to quiet, and the silent solace of the plant world and the love for my terrariums motivated me to work really hard at school.

I never thought someone with my background would be welcome at a place like Kalmia, but I had some of the best grades, nationwide, in our home school association, so I applied anyway. Getting accepted early decision to Kalmia was unreal. Not only is everything there first rate, but it has one of the best botany facilities in the country! Its herbaria is second only in size and scope to the famous one at Harvard. Once I got to Kalmia, I never wanted to leave, so after I finished college, I ended up staying for another 8 years to get my master's and PhD in botany. I also picked up an undergraduate minor in entomology along the way, and I did some research projects about the interaction between native plants and foreign insects. I am by no means an expert in entomology, but if you want to have a career in academia, even with a degree from Kalmia, you have to be willing to diversify. After I became Dr. Boon, I applied to a few places. But there aren't many botany slots open in a year, and when I missed out on the job at lowa State, I decided to stay as a post-doctoral researcher and to teach at Kalmia while I worked on writing up my research for publication.

I was in the middle of my post-doc research on invasive ground plants at Kalmia when I met Harper. It was the fall term in 2011, and I was teaching an introductory biology class as part of my post-doc work. Botany was part of the much larger Department of Organismic and Evolutionary Biology and as one of the most junior members of the staff, I had to teach a ton of low-level courses. I was also the administrator in charge of the botany laboratory, and our Department Chair asked me to take over the entomology labs next door, too. All in the name of science you know. A week before classes were set to begin, I was approached by Chip Stork, a senior and the pledge master at Zeta lota Pi or ZIP as it's known here at Kalmia. To say that ZIP is just another fraternity is like saying that the Gallica is just another rose. ZIP has a national reputation as being incredibly prestigious and exclusive, and Kalmia's branch was no different. ZIP gets around the formal rush process by "tapping" the best and brightest students in each freshmen class earlier than anyone else can get to them.

I still remember the day I got tapped. I was bent over a particularly unusual specimen of orchid that I was cultivating in my dorm room when an envelope embossed with the ZIP crest came flying under the door crack and hit me on my heel. From that moment on I was a Zipper, and

my whole life changed. I have no idea how they found me, because I didn't really ever leave my room, but for the first time ever, I had friends and well, it felt great! Another perk that comes with being a Zipper is the connections. It turns out there are Zippers in high places just about everywhere, especially in academia. Let's just say it didn't hurt my prospects applying for a job at Kalmia that two of the deans are alums of ZIP, and I think I missed that Iowa State job basically because the Zipper who had been the provost had just announced she was leaving. You never really leave ZIP, or want to, and I stayed very active with the Kalmia chapter.

Anyway, back to the fall of 2011. I was working late in the botany lab one night when Chip burst in, looking panicked. It turned out that Harper Marmalard, one of the new ZIP members, was in serious danger of having her/his GPA fall below the 3.5 average required for Zippers. Chip kept saying that Harper was the most dedicated Zipper he had seen since arriving at Kalmia and that Harper was destined to become ZIP president one day. Harper's father was a big ZIP donor, and Harper's family was, like, all Zippers. It would have been really bad to lose her/him.

I did my best to console Chip, especially since I had no idea how I would be able to help him with this Harper situation. I said as much to Chip, and that's when things started to get weird. Chip got a strange glint in his eye and said, "Oh but you *can* help us, Corin. Harper needs one more A, and you can give it to her/him." Chip said Harper was really struggling to balance his schoolwork and being a Zipper, and that he needed someone to cut her/him a break. I told Chip that I didn't *give* anyone an A – hardworking students earned good grades. Chip looked really upset though, so I told him I would keep in mind that Harper had a lot going on when I was grading her/his work. Chip thanked me and told me I was a true Zipper.

I realized quickly Harper wanted more than just a break on a test or two, since s/he didn't show up for a single class the first half of the semester. All of the papers s/he turned in were short, sloppy, and clearly written without any effort. I send out mid-semester evaluations so my students know how they're doing, and Harper's had a big F stamped across it, since I still had yet to see her/him show up to class at all.

Two days after the evaluations were sent out, Chip stormed into my lab, holding Harper's evaluation in one hand and the ZIP bylaws in the other. Chip started yelling about how I had promised him I would go easy on Harper, and that I was supposed to be giving Harper an A, not an F. I told Chip that I thought he had just wanted me to excuse a late assignment every now and then, not give an A to someone who wouldn't even show up to class. Chip said Harper needed all the time s/he could get to study for her/his other classes, and that s/he couldn't be expected to show up to my class on top of all of her/his other obligations. Then Chip pulled out the ZIP bylaws right there in the lab and made me read Article II, Section 5 out loud. Section 5 says, "Zippers always stick together and help whenever possible, even when it seems impossible." It did seem like it would be a clear violation of Section 5 if I didn't help Harper, and Chip looked scarier than a bleeding tooth fungus right then, so I agreed.

Before I knew it, I was accepting anything Harper turned in for any class I taught as being the best of the best even though the papers got worse and worse. The worst of them all was Harpers midterm report for the Botany 301 class I taught during the 2014 spring term. I still remember what the topic was – the virtues of milkweed. It couldn't have been longer than 350 words. I grabbed the paper from Harper and pointedly wrote an A- across the top after briefly reading what was nothing more than pure drivel.

However, in fairness to Harper, s/he did show promise when it came to entomology. That was what was so very frustrating about Harper. S/he had the skills, but lacked the motivation to pay

her/his dues across the board. If s/he loved something, like entomology, s/he would excel. If s/he didn't, s/he was wasting oxygen. Even though I loathed what s/he and ZIP did to my integrity, I couldn't help but want to help Harper with her/his academic passion. Call it the educator in me. So when Harper asked me for a space to do some independent research in the entomology lab, my anger melted away. At the start of her/his junior year, Harper began a pretty massive project studying the effects of wood boring Northeastern insects on wooden structures. I happily obliged and also thought that I might be able to use some of the research for a paper of my own later. You know, it's publish or perish in my line of work. Hindsight and mistakes in judgment aside, I liked Harper's company. Well, at least I did at first.

But, from the moment s/he started working in my lab, s/he would drop hints about other Zippers who needed a little extra academic boost, and ask me repeatedly if I would let them slide in my classes. I know I should've told her/him no, but each time Harper told me it would be the last Zipper that needed my help. While Harper was at Kalmia, there must've been twenty or so instances of Zippers getting A's from me for doing close to absolutely no work. I felt terrible, but my hands were tied. If I came forward, I would lose everything: my job, my lab, my plants. Besides, Harper never stopped reminding me that it was thanks to ZIP that I got my position in the first place. My plan was to wait until Harper graduated, and then stop the scam. Full stop.

In 2014, Harper started his senior year as an accomplished entomology major. Unlike me, Harper knew how to play the political game of academia. He even got a peer reviewed paper published with the help of the esteemed blowhard entomology figurehead, Lane Dorfman. I never liked Lane - old guard pontification – and I generally stayed out of her/his way after s/he refused to nominate me for a tenure track job at Kalmia. Of course, I read Harper's paper, it seemed like some typical Dorfman crockery, and I wasn't all that interested in some scratch and sniff scientific theory written by an undergrad.

 While working in my lab, Harper got really interested in the Formossan Subterranean Termite. While not native to Pennsylvania, Harper decided to do her/his senior thesis on it. I had to OK the project as the director of the lab and didn't really see any harm in adding this particular species to our collection. They might have been a bit more dangerous than your standard termite, but we had a lot of institutional knowledge in containing and studying aggressive insects. Harper got obsessed with her/his research. At first I liked how dedicated s/he was, but then it started to get a little weird. Harper would stay up all night just staring at the terrarium where her/his termites were housed. I saw references to "super termites" in her/his log notes and I know s/he would commonly separate large swaths of the colony to run random experiments. Some of it seemed so off base when s/he would tell me about it that I ended up not really paying attention to what s/he was doing. I'm a scientist, not a science fictionist. I guess that was a mistake, but I couldn't imagine anything groundbreaking was going to come of this extreme insect tomfoolery. I was responsible for the lab, but I wasn't advising on the thesis.

Making matters somewhat worse was the fact that Harper had finally risen in the ZIP ranks and was now the pledge master. On August 15th, 2014, Harper walked into the lab with a big grin on her/his face. S/He said s/he was going to tap Alex Otter, Dana Stork, and Mandy Pepperidge. S/He was confident that they would be the "greatest pledges ZIP had ever seen". However, just a few weeks later, Harper came into the lab looking panicky. S/He was talking so fast I could barely understand her/him, but the gist of it had to with a problem with one of the new pledges, Mandy. Harper said that Mandy had found one of her/his old "papers" for one of my classes in the ZIP archives and was well on her way to uncovering the whole Zipper paper scheme. A rush of dread overcame me. I got really nervous when Harper said that, because if Mandy

came forward about the scheme, I would crash and burn along with the ZIP legacy. My first reaction was wrong. I said we couldn't let that happen.

Harper thought that if s/he just didn't allow Mandy to graduate from the pledge class and become a full-fledged Zipper, it would solve the problem. But I had been blackmailed enough to know how blackmail works. Mandy was no dummy, and I knew that if she were kicked out of ZIP, she probably would go the university administration faster than a morel mushroom pops up after a rain storm. Harper nodded slowly as I explained this and Harper said that the only way to get Mandy to keep quiet was to scare her into silence. Harper wanted to send a message that ZIP was nothing to mess around with. Then Harper got the idea to use bedbugs to get back at Mandy. The plan was to release a few of them into Mandy's room the following night. I didn't like this idea, but on the other hand, Mandy wouldn't be seriously hurt, and we needed this problem fixed. I gave a very soft no and didn't exactly stop Harper when s/he walked out of the lab that night carrying a mason jar. Normally I would have reprimanded Harper for not using the modular transports, but for bedbugs, jars work fine.

I didn't see Harper at the lab for the next few days, but I just assumed s/he was busy with school and ZIP and the bedbugs had sorted Mandy out. Then on September 4th, Harper came into the lab in a rage. S/He said that Mandy was still on his tail, so Harper had to take more drastic action. S/He told me about how s/he rigged the next Feat of Fortitude to be something called a "cinnamon challenge", and it landed Mandy in the hospital. Harper said Mandy still wouldn't drop the paper scam, and had even sent Harper an e-mail threatening to bring down ZIP, if Harper didn't stop the hazing. I had never seen Harper so angry.

I was shocked that Harper had put a student in serious danger and told her/him to drop the whole thing. I told Harper that it seemed like Mandy was willing to keep the paper scam to herself so long as Harper left her alone and admitted her to ZIP. I wasn't sure if that was true, but Harper was scaring me, and I needed to calm her/him down. Harper wouldn't calm down, though. S/He kept saying he needed to scare Mandy and protect the ZIP legacy. Finally, Harper seemed to pull her/himself together enough to stop talking about scaring Mandy. S/He told me that the final pledge task was coming up and s/he thought it would be hilarious to have the pledges plank at different locations around campus. I didn't even know what planking was until I looked it up on the internet.

 Around 6 o'clock that night I met with some other faculty to talk about funding for new lab equipment. I was worried about leaving Harper by her/himself, but s/he said s/he just wanted to check on her/his termites one more time, and then s/he would lock up and go home to think more about what to do. As I was walking out the door to the lab, I head Harper mutter to her/himself something that sounded like Mandy's name and the two words "breaking point".

The next day was a pretty ordinary one. I was in the lab by 9am and out by 5pm. I was supposed to move a few moss species to a new terrarium, but I couldn't find any small plant or insect transports. I shrugged and figured I must've left the jars at home or something. On my way out, I passed the terrarium where Harper keeps her/his termites and glanced at the colony. It looked like there were way fewer termites crawling around in there than usual, but I also know that termites love to find small spaces to burrow in, and I assumed that a number of the little guys were just playing hide-and-seek. It also crossed my mind that some of the colony might have died due to a nasty bacterial contamination that affected some of the other species in the lab, but Harper didn't record any contamination in his research logs and it had been a few weeks since our last outbreak.

Now, of course, I know where the termites went. Harper took them after I left the lab that night and deposited them on the *Paifang* that the police told me collapsed on Mandy. It's no coincidence that the police found Formosan termites on the *Paifang*. I've been to that gate on campus – who hasn't – it's 28 or 29 feet tall! It may have been old and a bit rickety, but I'd seen dozens of kids over the years hang off that thing. It wouldn't just fall apart unless it was pushed. Like a willow tree in a thunderstorm – it's not just going to break unless it's under extreme and unnatural force and pressure. I just can't believe Harper would've taken things this far. We have Giant Japanese hornets, TseTse flies, and Black Widow spiders in our entomology lab, but I guess Harper was the real killer at Kalmia.

Corin Boon	December 10, 2014
Signature	DATE

Statement of Drew Pinto

My name is Drew Pinto, and I am a forensic entomologist in private practice. I am a partner in American Forensic Entomologist Consultancy, LLP. "AFEC," as we call it, is a group of forensic entomologists who have been given an exclusive contract to serve as entomological experts by the National District Attorneys Association. Consistent with the terms of that contract, we serve as experts in forensic entomology for prosecutors' offices across the United States. We have also worked in Canada and the United States Virgin Islands. We are paid a per diem of \$1500/day for our services and testimony, including our travel time. That is a discount from my usual rate of \$300/hr., or approximately \$2400/day, which is what I charge in private consulting. Unless subpoenaed by the defense, we testify exclusively on behalf of prosecutors' offices. We are not as one-sided as it seems, though: we give our honest scientific appraisal, and if our findings don't support the case, often prosecutors won't even bring charges.

I have attached the AFEC-centric version of my curriculum vitae for your review, but short version is that I went to Purdue University, received my degree in Biological Engineering with minors in Architectural Engineering and Crop Science, then entered the graduate school and completed my Ph.D. in Entomology in 1992. At the time, I had not heard of forensic entomology, but I saw a posting from the Federal Bureau of Investigation for a post-doctoral position, and shortly after graduation, I started with the Bureau, first in their national criminal laboratory and then as a member of the Evidence Response Team Unit. After ten years with the Bureau, my kids were getting to be college age, and I entered private practice. A few years ago, I joined AFEC. It accounts for about 15-20% of my income. The vast majority of my time, I'm doing agricultural or biological engineering, developing crops that are resistant to harmful insects, or helping communities fight against invasive insect species through planting strategies and effective pesticide approaches.

When people think of being a "bug guy," they're generally thinking of two things. Either they're picturing a ridiculous nerd in a basement full of soil-filled aquariums or they're thinking of someone in a shiny lab making amazing breakthroughs over a super-computer. I'll let you judge whether I'm the nerd you have in mind, but I can tell you, there aren't many of us with the kinds of technology you see on TV! I wish it were like *CSI* and *Bones*! The reality is more pedestrian: we use our brains and some basic tools to make fairly straightforward conclusions.

That's all I am doing in this case. I was called on the evening of September 12th, through the AFEC hotline. I was next in the queue, which meant it was my call whether to take the job or pass. I live in Indiana, so the Pocono Mountains weren't close, but it was close enough. I agreed to take the matter. The next morning, I loaded up my collection gear into the truck and headed out. I arrived late the next night and visited the crime scene for the first time shortly after dawn on September 14, 2014. I met the on-scene officer and the local chief, who introduced me to the University's Vice Dean for Physical Plant, Carmine DePasto, and we traveled onto campus together to see the arch. According to DePasto, the arch that partially collapsed was a *paifang* brought to the United States in 1868 in celebration of the Burlingame Treaty establishing cordial relations between the United States and China following the Opium Wars. The treaty was negotiated by a Kalmia alum, Allistair Burlingame, who also established the exchange program between Peony and Kalmia that has been running since 1871. At the time, I thought DePasto was just bragging about Kalmia's history of power to a state school guy from the sticks, but I later realized that history mattered.

We arrived shortly thereafter at the *Paifang*, which was surrounded by police tape, flowers, and candles. I was upset; while understandable, this display of emotion risked contaminating the

crime scene by changing the behavior of the insects present. Insect behavior often reacts to changes in fragrance or temperature. Nonetheless, after taking appropriate precautions against contaminating it further, I crossed the tape and began my inspection.

The base of the *Paifang* was in fairly solid shape, of course, because it was stone. However, the rest of the structure was lacquered wood, as is the custom in archways of that time. That wasn't bad considering its age. Remember, it was built in the 1860s at the latest: you couldn't just hit up the local S-Mart for pressure-treated or chemically infused lumber back then! The wood appeared mostly solid to the eye, with a relatively speaking fresh coat of paint and lacquer covering the original decorative calligraphy carving. At the tops were a series of stacked wooden slats.

 I had been told that the death resulted from a student's fall from near the top of the archway. It wasn't hard to tell where that had happened; there was a large piece ripped from the western end on the northern face. When I focused, I could see movement. I grabbed a ladder and headed up. As I approached, I immediately recognized the problem: there was a colony of termites roiling around the wood near where the piece had broken. I grabbed several, and I was shocked to see the telltale markings not of the common wood termite in Pennsylvania - the Eastern subterranean termite (*reticulitermes flavipes*) – but the lighter-shelled Formosan subterranean termite (*coptotermes formosanus*).

I cannot stress enough how shocking this discovery was. In the pest control field, they call the Formosan subterranean termite (or "FST" or "Formosan" for short) a "super-termite." They're among the most destructive known sub-species, and they have never been successfully eradicated from an area once they have invaded it. A typical Eastern subterranean termite colony, might destroy about 5 grams of wood per day. That's bad, but Formosan colonies can have ten times as many members. A mature Formosan colony can destroy 400 grams of wood per day, eighty times as much. An FST infestation can structurally undermine a full building in a couple of months and it can render one unsalvageable in less than a year.

I've worked against FST invasions before, principally in Hawaii and Florida, but there's virtually nothing you can do about them. The one saving grace – for now, absent mutation – is that FST eggs will not hatch below ~20° Celsius (68° Fahrenheit). For that reason, they're more or less unknown north of 35° latitude or so. I provided a map of the FSTs typical habitat as part of my report. It is part of our regular business to produce these kinds of maps. Importantly, Kalmia is five degrees or so north of that, representing hundreds of miles. That's basically an impossible leap northward for any species, but especially a ground insect like a termite.

Immediately, my mind started racing, trying to think of ways that the insects could have gotten there. Most Formosan colonies that do not expand normally from established colonies are introduced by an individual inadvertently. That's how they came to the country; as best we can tell, the first FST colonies came to Hawaii via boat, on infested wood, in the late 1800s. They reached the mainland the same way shortly thereafter. That didn't make much sense for Pennsylvania, though, especially when Dean DePasto advised me that there had been little or no work done on the *Paifang* since it was substantially refurbished in the 1960s and had some pure cosmetic work done in the 1980's. That also explained the modern nails and 2x4 fragments I was seeing. I next considered the possibility that there had been a dormant colony there for years, maybe decades. But that didn't make a ton of sense, either. First, the scientific evidence for dormancy beyond a decade or so is very, very thin, limited to a handful of papers mostly without scientific basis. Controlled experiments can't rule it out, but only those in the most ideal, laboratory conditions have shown it work. In a rough-and-tumble environment like

Kalmia County there's no evidence for it. Second, even if there was a dormant colony, I wasn't aware of any radical changes to the environment to trigger it. Neither DePasto nor the deputy with me remembered any radically unusual weather, and when I subsequently reviewed National Weather Service data, it had not been unusually hot or humid during the summer of 2014.

That left intentional implantation as the most likely cause. My first thought was that someone had an anti-China agenda, maybe a group of students sympathetic with Tibetans or the demonstrators in Hong Kong. DePasto acknowledged that, like many elite universities, Kalmia had its share of folks with those ideals. But he didn't think that was likely. And he shot down the idea that someone could be doing it to take a shot at Kalmia's sports history, like the University of Alabama fan who poisoned the oaks at Toomer's Corner at Auburn University. Apparently, Kalmia's biggest rival is Dartmouth, and the roughest it has ever gotten is graffiti on a team bus.

I was exasperated. But then I remembered seeing a Kalmia team while I was in Hawaii, collecting samples for the entomology lab right on Kalmia's campus! DePasto told me that was impossible, but I ignored him and went straight to the police officer. When DePasto hesitated, we called Erica Stratton, the University President, and we obtained her personal permission to search the entomology lab and collect records and samples if needed. That's where we found Kalmia's licensed laboratory FST colony seemingly half-empty, without any notation in the daily lab reports to indicate their disappearance or their destination. Corin Boon, the lab's post-doc head of administration, gave us some line about a bacterial infection or something, but it sounded hollow even to my untrained ears. It turns out Corin was more of a clerk to the lab than a bug guy. S/He wouldn't know the difference between Formosan and a standard termite.

The Kalmia Police Department and a representative from the Pennsylvania Department of Agriculture conducted a full audit. They reported to me, and later in their official report, that the lab was one of the best-maintained, most compliant they had inspected in years. Only a handful of things were missing: an explanation as to where half the Formosan colony went, some records regarding their bedbugs laboratory, and several missing chemicals. There were also no records of how many modular insect transport systems (we don't use jars, no matter what you have heard) the lab had, so it is possible some of those were missing as well.

I recognized one of the chemicals as a component used to make synthetic scents that trigger insect reactions. One of the missing chemicals, for example, is used to make synthetic bedbug pheromones. Pheromones are chemical factors that trigger a social response in members of the same species. For example, they can attract groups of insects to an area or make a particular place seem more attractive. We sometimes use synthetic bedbug pheromones in apartment buildings to keep infestations contained where they are until the linens can be thoroughly washed or destroyed. The bedbugs will just stay in the area of the pheromones, reacting to the chemical like a moth to a flame or an undergrad to free pizza.

The other chemicals I didn't recognize, but that night I emailed a colleague at the University of Hawaii who is an expert in the FST, Katie Allen. I figured she would know better than I did, I was right. Turns out that Katie had peer reviewed an article done at Kalmia a year or so ago where they theorized a path to a similar synthetic pheromone to use on Formosan colonies. As far as she knew, it had never been successfully synthesized, but she told me that Kalmia has a reputation for accidentally "forgetting" to share new discoveries with their research partners until they had been patented. The police and Department didn't find any actual synthetics at the entomology lab, but they did find lab notes regarding Kalmia's FST terrarium signed by

someone named Harper Marmalard. The Dean told me that Marmalard was an undergraduate and a student leader. The notes looked to me like graduate level work product, but it could have been a talented undergraduate, especially if he or she was approaching graduation. The notes were co-signed by the laboratory director, Corin Boon.

I told the police they should speak with both Marmalard and Boon, because two of the chemicals mentioned in the notes were among those missing. Unfortunately, neither of the chemicals was recovered. Doubly unfortunately, one was water-soluble and the other evaporates rapidly, so the rains the night before would have destroyed any trace on the wood, even if there was a valid test for them, which there isn't. The closest thing we have to a smoking gun connecting the Formosans on the arch to those in the lab is their genetic similarity. I tested both in my lab and had my results verified by the (independent) lab that Professor Allen runs. The FST colonies are virtually identical at a genetic level, to a degree that is very unlikely to be mere chance. However, genetic drift in insects is very limited, and virtually all laboratories in the country primarily use FSTs from the same seed set, so I cannot say to a degree of scientific certainty that the termites on the *Paifang* were taken from the Boon/Marmalard lab. That's what I think happened, but I can't swear to it as a matter of pure science. It does make it less likely that it was a dormant colony, however. For that to be the case, the colony would have just happened to have been from a genetically near-identical line as our lab source. The odds against that are quite high.

We also can learn from the colony structure. Usually, FSTs are expansionist and adventurous, traveling along food sources in ever-expanding rings rather than decimating their colony center then moving on to another rich environment. These Formosans, however, seem to have stayed in one place, deeply weakening it without meaningfully expanding their colony. It was one of the densest groupings I have ever seen! Either there was something incredibly tasty about that particular section of wood – which occasionally does happen, even if we do not fully understand why – or there was an artificial chemical trigger keeping them in place.

The only hitch in my theory is that the degree of destruction we see in the *Paifang* is more consistent with an infestation of a month or more than one that merely lasted a few days. In fact, the damage on the *Paifang* was so extensive that large swaths of the area where Mandy fell from turned almost to dust upon the touch. The pieces recovered from the ground were no better. The samples I used in my report were the best available in terms of structural integrity. But, even those had more holes than a standard block of Swiss cheese. There was serious and acute damage to the *Paifang* and I could see why the wood where Mandy fell from sloughed off so easily.

Of course, my data and frankly experience in this regard is based on typical FST behavior; pheromones can massively change that. There are documented cases, for example, of pheromones commonly associated with scarcity or famine causing animals to overeat, nearly to death. If an FST expert knew what chemicals to use, s/he could have gotten the results in much less time. And it is hard to predict what effect the denser colony would have had; it certainly would have accelerated the destruction of the area of dense inhabitation. We just don't know how much, because, again, FSTs don't normally act this way, and nobody has published findings that explain how to keep them contained.

I have read Lane Dorfman's expert statement, and although s/he certainly has earned her/his reputation for creativity, I just don't think s/he's right. To suggest that a colony FSTs were dormant in the *Paifang* for over 150 years because of some ancient sealant is I guess possible,

but so is me throwing a pile of sand into the air only for it to fall to the ground in the shape of a sand castle. Dorfman is a recognized genius, but her/his best days are apparently in the past.

By contrast, science is on my side. I can and do state within a reasonable degree of scientific certainty that the wood of the *Paifang* was weakened by an infestation of Formosan subterranean termites. Moreover, these Formosan termites were, within a reasonable degree of scientific certainty, introduced by an outside vector to the particular area of the *Paifang* that collapsed. In addition, the fact that their efforts were localized to that particular area, despite the large size of the colony, suggests within a reasonable degree of scientific certainty that their behavior was affected by an outside force, such as a synthetic pheromone. As a matter of architectural design and engineering, and based on my experience observing FSTs in other real-world places, the infestation weakened the *Paifang*. Just as the Zillias engineers found, when weight was placed on the weakened structure, and specifically the wooden roof, the material failed because it was compromised. That fall killed Mandy Pepperidge.

It is, of course, not my place to opine who particularly placed these insects on the arch and killed that poor girl. That is a matter for the police. My job ends where the bugs do.

In preparing this opinion, I reviewed the statements of Alex Otter, Corin Boon, Harper Marmalard, Dana Stork and Lane Dorfman. I also reviewed in forming my opinion on the following exhibits: Exhibit 5, Exhibit 7, Exhibit 10 and Exhibit 11. I am also familiar with my own resume and that of Lane Dorfman, and my opinion is based in part on the facts and experiences reflected there.

<u>Drew Pinto</u> Signature December 12, 2014
DATE

Statement of Harper Marmalard

My name is Harper Marmalard, and I'm 22 years old. I currently live with my parents at their brownstone in Rittenhouse Square, Philadelphia. I don't work and I don't go to school. Since getting expelled from Kalmia University in early October 2014, I've dedicated all of my time to clearing my name and resuming what was a fast-path to success in the field of entomology. I want to become a professor someday. That dream is on hold, but certainly not forgotten. I'm not perfect. I'll never claim to be. I've made mistakes – a lot of them – and I'm willing to admit all that I've done wrong. But, I didn't want Mandy Pepperidge dead and I most certainly will continue to deny that I had anything intentional to do with her dying. If there was foul play, it wasn't me. Mandy killed Mandy, or fate did. She died because of a freak accident. She knew what she was doing and took responsibility for the risk involved.

It is funny how philosophical I've gotten now that my liberty is at stake. I've learned a lot about myself. Maybe a bit too late in some respects, but I think what I've learned will help the courts understand that what I did might have been unethical, mean-spirited, and dishonorable, but it was not murder. I am a product of my surrounding. All I really am is a nerd in sheep's clothing that wants nothing more than to be antisocial and engrossed in academia. I wish that I was still holed up in the entomology lab studying my termite colony.

I went to a well-respected private high school in Philadelphia and earned top grades. School came super easy to me. Everyone always told me I was attractive and I guess that lead to me being popular. I was on homecoming court. I was always told I was the best, the smartest, the funniest, the nicest. It got to my head. I admit that even in high school I was a bully. I would pick on lots of people for how they dressed or how they acted. For some reason, I didn't see anything wrong with that. I thought it was cool. I had it all twisted. I realize this now and I think that is why it is apparent that everything I say is true.

When I got to college in the fall of 2011, it was as if I was able to pick up right where I left off in high school. Kalmia University, as everyone knows, is one of the best schools in the country. Frankly, between my grades and my parent's willingness to donate some money, I could've gone to any Ivy League school. But the admissions office at Kalmia suggested rather strongly to me that if I chose them that I could expect a nomination to their best honor society, Zeta lota Pi, or ZIP as everyone knows it. Being a member of ZIP is like a golden ticket to the professional world and that pretty much sealed the deal for me. I was always told college was about connections.

During my freshman year, after getting initiated into ZIP, my grades for the first time in my life started to flail a bit. I couldn't get by on just being smart like high school and pledging the honor society was quite a distraction. My pledge master, Chip Stork, didn't want to see me get kicked out of ZIP for falling below the mandatory 3.5 honor society G.P.A. That would've made us look bad. So, he had a talk with my biology professor, a post-doc named Corin Boon and a ZIP alum. The three of us then had a secret meeting in the archives of the ZIP house, and I was told that I didn't have to go to that class anymore and that my grade would be taken care of. Well it worked. I got an A in biology and cruised through the semester with a 3.7 G.P.A. I knew it was wrong to cheat the system, but since it was being arranged by ZIP, I thought it was OK – a perk for being a member of the honor society. I also thought it was going to be a one-off for me and that I wouldn't need any additional help for the rest of my time at the school.

Well, it actually became a bit of a habit. Over the rest of my freshman year, sophomore, and junior years, I continued to enroll in every class where Corin was listed as the professor. It

wasn't always as blatant as what happened in the biology class. Sometimes it was simply a paper here or a paper there that I really did a bad job on, but ended up getting a good grade. And it wasn't just me. When other Zippers found out what was going on, they too started taking Corin's classes and skating by. We celebrated it as if it was a privilege for the academically privileged. By the time I became president of ZIP in the fall of 2014 and pledge master, the scandal was so large it left almost no Zipper untainted. But now the stakes were higher for me. I wasn't just a participant, but a promoter. It was kind of like going from a junkie to a dealer. People feel bad for junkies. People hate dealers.

I guess the greatest irony of the entire scandal is that I did my best actual work around Corin. The geeky truth of it all is that I absolutely love bugs – studying their habits, altering their environments, and figuring out what makes them tick. It is like lording over an entire society. Although Corin was doing her/his post-doc research in botany, s/he was also in charge of the entomology lab. The de facto chair of the entomology department, Prof. Dorfman, was essentially retired and more served as a figurehead rather than an academic leader – though I loved chatting with her/him about bugs and life. S/He was a friend and mentor. But, Corin gave me a lab station as a freshman, without having me sit on the waiting list. I started my research on wood boring insects during my sophomore year and by the time my junior year rolled around in 2013, I was knee deep in one of the largest Formosan Subterranean Termite terrariums in the country. I even had a peer-reviewed paper published through the department in March 2013. You see, I really am a nerd! I would never ever cheat when it came to the Formosan's – that was completely sacred!

What interested me most about the Formosan is that it was not native to the U.S. and had originally been introduced through trade with China but flourished in some parts of the U.S. I remain very curious about the environmental advantages foreign species, have in the United States. Better understanding of our most prolific pests can lead to defeating them and in turn save millions if not billions of dollars of damage every year. The Formosan was a particularly nasty species, powerful, destructive, and marching in masses. Some call it a "Super Termite".

In my mind I kept saying to myself, if I can just graduate and get out of Kalmia unscathed, I could do my Master's and PhD elsewhere and put the scandal to rest. I wanted to build my C.V., write the best thesis possible, and leave with a legacy. I guess that is why I accepted the nomination from ZIP to be president and pledge master. I thought I could have better control of the scandal and at the same time further enhance my reputation.

I learned of Mandy Pepperidge the week before freshman orientation in August 2014 when the head of the admission committee met me, as ZIP President, at the ZIP house. He is a Zipper, and he let me know that Mandy was by far the smartest first year student entering Kalmia that year. He also gave me the names of Alex Otter and one other student. I would name her, but I would prefer to spare her the embarrassment of having her exclusion from ZIP public. We only let three freshmen in per year. On August 17th we chose our pledges. Mandy and Alex made the cut, and we added Dana Stork, Chip's younger sibling and a legacy. I owed so much to Chip, and Dana gave me a chance to pay him back. Zippers stick together. When someone pledges ZIP, they move into the campus house. I definitely set off to make Alex and Mandy my personal servants during pledge season, but I treated Dana more like an equal. I think this created some resentment right off the bat. But Dana was a legacy, and that's tradition for you.

Part of my obligation as pledge master was that I had to come up with a series of challenges for the pledges called the Feats of Fortitude. The Feats were definitely not difficult, and no one could really call them hazing. They were more like games that were used to form a bond

between the pledges and enhance their commitment to ZIP, as well as provide some public service to the University, the surrounding community, and even the nation. For example, during my pledge we all did a 100 mile bike ride and donated the money we raised to the Friends of Bog Turtles, from Wisawe, a sleepy town about 30 miles from campus. Most of the time, the Feats were thematically linked. The Big Lebowski Bowl-a-Rama in 2002 was legendary. My big idea for the year was to use recent internet and social media sensations.

The first Feat for the year was that I made the pledges do the ALS Ice Bucket Challenge. The pledges had until the end of the week and had to post it to the ZIP Facebook page. The three of them worked together without any instruction from me and ended up at the athletic department jammed in a whirlpool machine filled with ice while pouring dixie cups of water over their heads and holding a sign that said "We Stick Together", which was our tag line. The stunt was a big hit with the ZIP nationwide and over \$25,000 in donations was raised for ALS. I got all of the credit, which was cool, and the Zipper over at the Foundation was very grateful for our assistance. It also made me want to push the envelope a bit more for the next challenge. I wanted to go down as the best pledge master ever.

On August 25th I unveiled my second challenge. This time I told the pledges that they had to make a Harlem Shake video that highlighted what it meant to be a Zipper. I knew it was a bit passé, but I had to keep the theme going and it was a big deal back in 2013. The pledges were stumped as to how to make it special, so I suggested that they go down into the archives and do it there. The archives are where we housed all of our academic papers and notes from our classes. Plagiarism was strictly forbidden, but having a leg up was just another perk of being a Zipper. Well, the pledges, especially Mandy, took the idea and ran with it. They kept their plan a secret, which was kind of cute. The only information the rest of the house was given was that we were to show up in the archives on Thursday night dressed to the nines. When we showed up, the pledges were all dressed like babies. We stood there stoically until the music turned on and then all of us started throwing scrap paper making it look like we were tearing the room apart. It was good fun and, since we were already dressed, we headed out to an honor society mixer. I took Dana with the upperclassmen and left Alex and Mandy to clean up the mess. This was a big mistake. There's a reason why pledges aren't allowed in the archives.

The next morning when Alex and Mandy reported for their special duty, they confronted me with my worst nightmare. Apparently while cleaning up the mess, Mandy came across one of my papers from a Corin class I took the previous spring called Botany 301. Mandy started cracking jokes about milkweed, the topic of my paper, and I knew she realized it was not "A" material by any stretch. She then handed me the folder from the class. I'm really not sure how that one made it into the archive, but it was there. I should've told them it was a joke or something like that, but it caught me off guard. Instead, I defended the paper and said of course it was worthy of the grade I got. I could tell they both didn't believe me. I was so flustered I shredded my paper in front of them and told them to get out of my room. My mind was racing.

Even though it was a Friday, I didn't go out that night. I couldn't. I was paralyzed by the thought of being exposed as a fraud. I went to the lab the next morning to work on my termite project and speak to Corin. I ended up telling Corin about how we were both at risk and that we needed to come up with a solution or else s/he could lose her/his job and I would be expelled from school. Corin remained calm and asked me all sorts of questions about Mandy and Alex and what had happened. Corin was convinced that Mandy was still a few steps away from figuring it all out and that if we got Mandy to lose interest that Alex would as well. We both agreed that if we simply didn't let Mandy into ZIP that wouldn't be enough and would create resentment, and maybe even revenge. I was worried that if we let Mandy in, she would lord this

over me for the rest of the year. Corin hit the nail on the head when s/he said, "we need to convince Mandy that ZIP is not something to be messed with and make her afraid of us." I wasn't sure how I was going to get that done, but figured I could use the next Feat of Fortitude. Corin said s/he would work on an idea as well. All I knew is that we would have to work quickly because there were only two more weeks left on the pledge schedule.

That night I searched YouTube and discovered this thing called the "cinnamon challenge". Apparently, if you try to eat a tablespoon of straight cinnamon, it is impossible and the results are truly embarrassing. I figured if I upped the dose for Mandy it would frighten her/him off. I did read some stuff about it being potentially harmful to asthmatics, but the risk was small and as far as I knew the pledges were healthy. I planned to give out the assignment on Monday, September 1st. Fortunately for me, I got a bit of a head start on scaring Mandy off when s/he woke up the next morning with her body covered with small insect bites. I could tell from the pattern that it was the result of bedbugs. The timing was a bit ironic as Corin and I briefly discussed using the labs supply of bedbugs as a scare tactic, but I dismissed it as being too much too fast. There were no reports of bedbugs on campus. Mandy approached me that afternoon and accused me of hazing her. I laughed it off and said something flippant like, "better to have a few bug bites than maggots gnawing at your flesh".

We held the cinnamon challenge in front of all the other Zippers on Thursday September 4th. I told everyone that Mandy didn't do a good job cleaning up the archives and had to eat three tablespoons of cinnamon without water while Alex and Dana only had to have one and could use water. The results were hilarious at first. All three of them started coughing, spitting, and sneezing. You could barely see anything in the room because of the brown haze that filled the air. But things started to get serious when Mandy couldn't catch her breath. She was having a severe asthma attack. Though I wanted to see Mandy recognize the consequences of what she was considering, I didn't want her to die!

Alex and I loaded Mandy into my car and we headed down to United General Hospital, which was close. Fortunately, we got her there in time and doctor said that Mandy would need some sort of nebulizer treatment but would be fine. Alex and I waited in silence. I could see Alex's frustration building until s/he turned to me and accused me of intentionally trying to hurt Mandy. While I certainly didn't want to see Mandy in the hospital, I know it looked really bad. I said, "C'mon it was supposed to be fun, nothing wrong with pushing your limits." When Mandy was released, she came up to both of us and thanked me for saving her life. Mandy even said that she didn't have the fortitude to withstand everything. Right then I thought it was over.

I was wrong though. The following day I got an email from Mandy that actually threatened me and ZIP for hazing her. I couldn't imagine how she went from being apologetic to accusatory. I never should have said anything to Alex and I should've waited a bit before responding, but I was upset and wrote something stupid. Tone and intention is never conveyed well in email. I decided I needed to go to speak to Corin again before I made an even bigger fool of myself.

It was our regular Thursday night lab session, and I was a blathering idiot. I couldn't stop rambling on about Mandy was going to ruin my life. Corin was as calm as ever and told me it was time to drop the entire thing. I remember Corin saying, "If you do nothing, it will take care of itself. I promise." But, I couldn't let it go. I knew I had to push it further. Corin did manage to get me to change the topic and discuss the final Feat of Fortitude for the pledges. I told her/him that it was going to be a planking event and that Alex, Mandy, and Dana were going to be assigned a few iconic locations around campus to pull off the stunt. Corin asked if I knew what I was going to have Mandy do it. I told her/him that I hadn't given it much thought but was

thinking about maybe assigning her the Friendship *Paifang* which was in front of the Asian Studies building. My night got worse when I realized that because of all of this stuff, I had been neglecting my termite colony and half of them were dead from some odd bacterial infection! After Corin left, I cleaned out the farm of debris and left for the night. I know I forgot to enter the event in my log book, but that was an oversight. I clearly had a lot on my mind then.

On Friday, September 12th, I called the pledges together for one last time to let them know about the final Feat of Fortitude. I explained what planking was and showed them a few videos and Facebook posts. Mandy mentioned remembering hearing about the infamous New Zealander who died planking in 2011 and was being very nice to me. We all acted as if nothing had happened. I guess realizing that they were almost members of ZIP made this challenge feel celebratory. I told them all to be creative, but not stupid. I even said that under no circumstances was I in the mood to go to the hospital again. I gave Alex the Student Union as an assignment, sent Dana to the football field, and Mandy over to the Friendship *Paifang*. Right before they left for the night, Dana pulled me aside and told me how s/he had caught Mandy looking at the ZIP national anti-hazing webpage. Dana was very concerned that Mandy was going to report me for hazing and that I should watch my back. Well, that sent me over the edge again. I told Dana that I was going to need her/his help and to make sure Mandy made it back to the house after the stunt was over. I didn't know what I was going to do exactly, but I some dim idea of putting Mandy in the back of my car after taking her phone and driving out to the county and making her walk back to campus. That part of my plan never came to fruition.

I sat in my room alone the rest of that night trying to figure out how I was going to get Mandy to shut up. The next thing I really remember was the campus police coming to the ZIP house and informing us that Mandy had died after falling headfirst from the top of the Friendship *Paifang*. As the investigation continued over the next few days, I became the center of attention. The story gained so much intrigue that it was picked up by the national media. The entire paper scandal was revealed to the administration by Corin, and I was suspended and then expelled. I was found guilty in the court of public opinion, and I think the cops charged me with murder just to appease the Twitterverse. Another internet driven overreaction. Look, when I did a crime, I will do the time. What I did with the cinnamon challenge was hazing, at least under that legal definition. I read it, I accept that, and I pleaded guilty. But murder? That's just crazy talk.

I was on the fast track to success and then I was stripped of everything including my dignity. I deserve to be kicked out school for cheating, but what happened to Mandy that was not on me. Everyone knew the *Paifang* was a rickety old structure. I didn't tell her to climb up it. She could've just laid at the bottom and snapped a picture. Mandy assumed the risk and unfortunately paid the price. I know that a lot is being made of the fact that some Formosan termites were found on the *Paifang*, but I had nothing to do with that at all. And while I was certainly curious by the use of pheromones to modify the behavior of the species, I was by no means an expert on the topic and most certainly did not have access to the types of scents that would cause that kind of reaction. Maybe a few of them escaped from the trash when I cleaned out the colony after the bacterial infection or maybe they were some lying dormant in the wood itself. I mean the thing was from China after all. Also, I was not the only one with access to the termites. I don't even like to think it, but I did share a lab with Corin after all. The cheating scandal certainly doesn't look good for me, but it is the end of Corin's life's work.

Harper Marmalard

<u>December 8, 2014</u>

Statement of Dana Stork

My name is Dana Stork and I'm a freshman at Kalmia University. I was in the Zeta Iota Pi pledge class that uncovered the big academic scandal. Since then I have been kind of blackballed by the rest of Kalmia. Guilty by association, I guess. Mandy's gone, Alex is at another school, and the rest of the Zippers were suspended for participating in the paper classes. Now I am the only one left. I still get stares when I walk in the quad and for a while it seemed like, with the press following me around, that I was some sort of unhinged Hollywood celebrity. I have tough skin though. No need to worry about me.

Of course, through all of this ZIP lost its charter at Kalmia. But, my goal is to bring it back to prominence and reestablish the reputation of the finest honor society in the country. To do that, I must start by clearing the record, correcting misconceptions, and ensuring that the court of public opinion doesn't influence what this court decides. Everyone wants to make it out like Harper is some sort of bad person. Nothing could be further from the truth. Yes, s/he cheated on exams and faked her/his way through a few classes, but Harper cared way too much about ZIP and her/his career to risk it all. More than that, and I cannot really explain it, but Harper is not the killing sort at all. S/He comes across as cool, but no one at Kalmia is really cool. We are all nerds. Just because Harper didn't like Mandy and had a bug fanaticism doesn't make her/him a killer. No, this is just a blame game, and Harper's caught in the crosshairs.

My older brother, Chip, graduated from Kalmia in 2012 and was also in Zeta lota Pi. Ever since Chip was tapped his freshmen year, ZIP became almost as common a word as "hello" in my family. As Chip got older, he climbed the ZIP ranks until he was the pledge master by his senior year, and got more involved with selecting the members of the incoming ZIP pledge class. I still remember my conversation with Chip after he tapped Harper Marmalard, one of the new freshmen that year. Chip said that Harper was the kind of Zipper you only found once in a lifetime – loyal, ambitious, and selflessly dedicated to ZIP. Chip told me that Harper would do anything for ZIP.

Chip also told me about how Harper struggled a bit academically, but that he had arranged for some tutors who would help Harper stay in ZIP. Chip told me that while as an honor society, ZIP obviously valued academic performance, there were some things that were more important than a 4.0. Chip told me that the kind of loyalty and dedication that Harper had was way more important to being a Zipper than grades or test scores.

When I met Harper a few months ago, I finally understood what all the hype was about. I had just finished unpacking my collection of famous ZIP alumni bobble-heads (Emily Dickinson and Thomas Edison were both Zippers, believe it or not) when Harper walked into my dorm room. I recognized her/him immediately based on what Chip had told me, but I'm embarrassed to say that I was a little star struck, and couldn't even manage a proper handshake. Harper took it all in stride, though. S/he is the kind of person who makes you feel totally comfortable and at home, even in a place as alien as a brand new dorm room with its poster-less white walls. Before Harper left my room that day, I somehow worked up the courage to ask about pledging ZIP. Harper said that he would tap the freshmen pledges on the first official day of freshman classes which was August 18, 2014. S/He winked and said that I had nothing to worry about.

Although I completely trusted Harper, in all honesty, I was pretty worried about making it into ZIP. Zippers are the best and brightest of the bunch, and I wasn't sure that included me. In my family, Chip was the one with the brains, and I was well...the other one. That's why when I was one of three freshmen pledges selected, I could barely contain my excitement. The other two

pledges were Alex Otter and Mandy Pepperidge. I knew Mandy a bit from earlier that day. During our writing seminar, the professor gave us a pop grammar quiz. Mandy caught me sneaking a look at her paper and told on me! I mean, what are you – twelve? Since Mandy didn't have any proof, and I certainly wasn't going to admit to cheating on the first day for a nothing quiz, I didn't get in any trouble. Still, I don't think our professor ever really liked me after that. Mandy certainly was not on my best friend list.

Anyway, even though I didn't like Mandy, I was over-the-moon happy when Harper told Mandy, Alex, and I to move into the ZIP house on August 20th. As soon as we got to the house with our stuff, Harper made this amazing speech about how all of our lives were about to change forever, and ZIP would help us achieve things that we never thought possible. Harper also talked about the qualities that all Zippers share, and gave a quick shout out to Chip, mentioning that he was everything a Zipper should be. After the speech, Harper came up to me and whispered that s/he was sure I would do Chip's legacy proud. Even though s/he was talking quietly, I'm pretty sure Alex and Mandy were eavesdropping. They definitely didn't look happy that Harper had sought me instead of them out after her/his speech. Alex and Mandy looked even angrier when Harper let me get first pick of the rooms, but neither of them said anything about it. Mandy was your typical type A personality. She needed to be the best at everything, even room selection!

When Mandy realized over the course of the first few nights at the house, that only she and Alex were being woken up at 6am to make Harper breakfast and clean his room, Mandy pretty much lost it. Mandy barged into my room and started yelling about how she knew I was getting special treatment because my brother was a legacy, and that she and Alex were about ready to tell ZIP national about what Harper was doing. I calmly told Mandy that I didn't know what she talking about, but that I doubted anyone in ZIP would take the word of a lowly freshmen pledge over that of the house's senior pledge master. Mandy looked even angrier after that, but I'm pretty sure she didn't say anything to the other Zippers, because I kept right on sleeping in. I guess Harper did favor me a little bit, but that's just because s/he knew how much finally becoming a Zipper meant to me, even if I wasn't as much of a brainiac as Alex and Mandy.

The ZIP rush process consists of something called the "Feats of Fortitude", which are basically glorified bonding and service activities that the ZIP pledge class does every year. In a typical show of her/her brilliance, Harper had the idea of making this year's Feats feel especially current by basing them off of recent social media trends. For the first Feat, Harper told us to make an ALS Ice Bucket Challenge video that would do her/him and the entire ZIP house proud. Alex, Mandy, and I came up with this great idea to sneak into the athletic department after hours and shoot a video of us sitting in the whirlpool machine pouring ice water over our heads. Funny how Mandy had no issue trespassing or taking risk when she thought it would benefit her. But, when I tried to cut a corner, out came the whistle.

I was sure Harper would be really happy with our video, so I was feeling pretty good until Alex and Mandy started talking about the valedictorian speeches each of them made at their respective high school graduations. I rolled my eyes a couple of times, and not-so-subtly splashed some water in their general direction, but they were 100% obsessed with talking about how brilliant their syntax had been. Finally, I couldn't take it anymore, so I said: "There is a lot more to being a Zipper than your GPA, you know." As usual, it was Mandy who answered, saying that ZIP was an honor society, so of course academics were important. I mumbled something about how Harper wasn't even that good of a student, and s/he seemed to be doing pretty well in ZIP. Mandy asked me what I meant, and I told her and Alex about the long list of tutors that Chip had for Harper, as well as something Chip had mentioned once about getting

Harper into a class where s/he would be sure to get an A. For once, Mandy was silent. It felt so good to know more than her about something.

On August 25th, Harper called Mandy, Alex, and me into the ZIP assembly room and told us that our second Feat would be to make a Harlem Shake video. I've watched my fair share of Harlem Shake videos, but coming up with an original idea for one that would impress Harper and the other Zippers was a whole different story. Mandy, Alex, and I must have spent hours that night brainstorming, but we couldn't for the life of us come up with anything. The next morning, eyes red from too much YouTube-watching, the three of us approached Harper for help. Harper suggested that we shoot the video in the basement of the ZIP house, where the ZIP academic archives was located. As usual, Harper's idea was the spark the three of us needed to get our creative juices flowing. Mandy, Alex, and I decided to have the video start with us studying in the archives, and then have the older Zippers start dancing and throwing files around. When we ran our idea past Harper, s/he was really into the plan except the part where the Zippers would throw around old files. Harper said that we should throw around blank paper, since it would be a mistake to disturb any of the actual files.

S/he was actually pretty insistent that no one touched any of the files, which was a little bit weird, because I remember a bunch of the other Zippers talking about how no one uses the files anyway and the Harlem Shake video would be a good way to clear out some of the papers from years ago that were just collecting dust. Maybe it had something to do with the fact that we were pledges. We filmed the second Feat in the archives on August 28th and it went perfectly. Well, almost perfectly. The archives were a complete mess after the shoot, with so many papers strewn about, that it would take hours to restore anything like order to the place. Luckily for me, Harper said that there was a ZIP mixer happening right after the shoot and since s/he wanted to introduce me to some alumni who'd been in Chip's class, I didn't have to stay with Mandy and Alex and deal with the mess. Sweet!

When I got back to ZIP after the mixer that night, Mandy and Alex were bent over some old papers that looked like the ones from the archives that Harper told us to stay away from. I asked them what they were doing, and Mandy snapped at me and told me to mind my own business. I shrugged, assuming she was mad about having to clean up earlier.

 A few days later on September 1st, Harper summoned us again, this time to announce what the third Feat would be. I think the stress of pledging was finally getting to Mandy, because she looked terrible. Her eyes had deep circles under them, like she hadn't slept all night, and her arms were covered in these gross little red bumps. When I asked her about it, she said that there were bedbugs in her room which had been biting her all night. I wasn't surprised by this, since Mandy practically had a supermarket in her room so she could snack while studying late at night. While her endless supply of Oreos might've helped her power through those all-nighters, I'm pretty sure there was a trail of crumbs leading right to her door. I guess I should also mention that the day before, August 30th, someone who identified her/himself as a former ZIP member came by and asked me where Mandy's room was. S/He also told me to say "hi" to Harper, which I forgot to do. I did point her/him in the right direction.

The third Feat was based on the Cinnamon Challenge and took place the next Thursday. Basically, Harper told us that we had to eat a tablespoon of cinnamon each, while the other Zippers looked on. Right before we started, Harper announced that Mandy would have to eat three tablespoons of cinnamon because she didn't do a good job cleaning up the archives after the last Feat. I think Harper didn't mean it to be a punishment per se, but a chance for Mandy to

shine. That was part of the Feats of Fortitude. Something to challenge us and pull out greatness. In some ways, I was a bit jealous of all the extra attention Mandy was getting.

Eating a tablespoon of cinnamon is a lot harder than it sounds. We all started choking on the stuff and Harper gave us water to wash it down. Well, s/he gave water to me and Alex. Harper said Mandy couldn't have any water, even though she was choking and coughing the hardest. I thought this was a little irresponsible of Harper, especially since Mandy had told us at dinner the night before that she was worried about the cinnamon challenge because of her asthma. I obviously wasn't about to challenge Harper though, so I didn't say anything, and just tried to swallow as much cinnamon as possible.

Mandy didn't even make it through the first tablespoon before having an asthma attack. With all the brown clouds of cinnamon floating around though, it was hard to tell exactly what was going on, which I guess is why Harper didn't try to help Mandy right away. I'm sure that if Harper knew what was happening, s/he would have helped. Alex went up to Harper and started yelling at him/her, then helped Mandy out of the room and said s/he would take Mandy to the hospital. Harper, being the responsible pledge master I knew s/he was, went with Alex and Mandy.

Mandy was totally fine, but I don't think she ever forgave Harper for putting her through the cinnamon challenge. A few days later, Alex and I stopped by Mandy's room on our way to dinner to see if she wanted to come with. Mandy was bent over her computer, looking at the ZIP's statement against hazing. When Mandy noticed us standing there she said she was just doing some research, but I was pretty sure she was digging around to get Harper in trouble. I told her that she was being silly, and that she couldn't seriously think that what happened with the Cinnamon Challenge was deliberate hazing. It was just a mistake.

On September 12th, we were told about our fourth and final Feat of Fortitude. This last task sounded like the most fun yet – Harper announced that he would give each of us the name of a location on campus, and then we would take pictures of each other planking at those places. Alex was supposed to plank at the Student Union, I was told to plank at the football stadium, and Mandy was assigned to plank at this old gate in front of the Asian Studies building called the *Paifang*. At the time, I wished I was given the *Paifang* for my assignment. It was really the coolest and most iconic structure on campus. Sure it was old and a bit worse for wear, but even to be photo'd underneath of it would have been pretty cool. Harper was emphatic that we should all be very careful and make sure that we do not take any stupid risks. Harper said, "I want to make sure we don't end up back at the hospital, so don't do anything dumb."

After the announcement, Harper pulled me aside and told me how proud s/he was of me and the rest of the pledges. I felt like someone needed to tell Harper that Mandy was holding a grudge about the cinnamon challenge, and I knew Alex wasn't going to, so I told Harper what I saw Mandy looking at on her computer. Harper looked really angry for a second, but then s/he smiled, thanked me for telling her/him, and said that s/he would "take care of it." I wasn't sure what Harper meant by that, but Harper did ask me to go on a ride with her/him and Mandy after the final challenge was over. I guess Harper just wanted to clear the air away from the house and away from distraction. It felt really good tattling on Mandy instead of the other way around.

We set out that night around eight. First we went to the Student Union, and Alex planked on the railing by the main staircase. It was pretty lame, but I guess they don't teach you how to plank in calculus class. When we got to the stadium, I decided to show Alex and Mandy how it was done, so I climbed up the goal post and planked along the crossbar.

Finally, we went to the *Paifang*. There wasn't really a good place for Mandy to plank, so we spent a few minutes scoping out the gate, trying to imagine what Harper had in mind. Mandy spotted a little ledge at the top of the gate and pointed it out to us. Alex looked scared and told Mandy that there was no way Harper would expect Mandy to do something that dangerous. Alex told Mandy to just plank under the gate and call it a day. I thought planking under the gate barely even counted as planking and told Mandy as much. Mandy said she wanted to prove to Harper she deserved to be in ZIP as much as anyone. Alex pleaded with Mandy, saying she didn't have to prove anything, but Mandy ignored her/him. No one pushed Mandy to do it. Mandy climbed up the *Paifang* because she wanted to. She knew the risks. There's always a risk when you climb something 20 feet off the ground. But, like I said, Mandy was type A all the way and I guess wanted to show me up.

As soon as Mandy started climbing, the gate started creaking. Alex got really freaked out and kept telling Mandy to come down, but Mandy was determined to make it to that ledge. That was a clear warning sign, but Mandy didn't heed it. She decided herself to push along higher and higher. I guess I egged her on a bit, but I swear on my ZIP's honor that I didn't think anything bad would happen. After a few minutes, Mandy finally made most of the way up the structure. She was getting ready to start planking when she said this weird thing about how there were a bunch of bugs tickling her. Alex was shouting at me, so I looked down. I head the shingles where Mandy was resting break. It happened fast, so I didn't really see it, but I know Mandy landed on her head. We called 911. By the time the paramedics arrived it was too late. Alex was in tears, and I was pretty quiet. I did pick up one of the pieces of wood that fell of the *Paifang* while I was waiting. The wood practically disintegrated in my hand but I didn't see any bugs on it.

Of course I'm sad about what happened to Mandy, but blaming Harper for this is ridiculous. Harper never told Mandy to climb that ledge and s/he certainly didn't make that piece of wood fall off the *Paifang*. In fact, Harper warned Mandy against doing anything dangerous. I know it sounds weird blaming a dead person, but if Mandy hadn't been so determined to prove herself, none of this would have happened. Now the Kalmia chapter of ZIP has been shut down and my dream of being pledge master like Chip is ruined.

Dana Stork
Signature

<u>December 9, 2014</u>

DATI

Statement of Lane Dorfman

My name is Lane Dorfman, and I am the Simpson-Day Distinguished Professor of Organismal Biology and the Chair Emeritus of the Kalmia University Department of Entomology. Indeed, my presence appears sufficiently grand that no other Chair has even been appointed since I stepped down thirteen years ago. I graduated Oberlin College in 1952, *magna cum laude*, Phi Beta Kappa, and Zeta Iota Pi, received a master's degree in Entomology from the School of Forestry at Yale in 1954, with highest honors, and after taking several years off to travel the Orient, received a PhD in Entomology from Darwin College, Cambridge University, in England in 1964. I was immediately hired at Kalmia, as befits a person of my education and experience, and I have remained a committed part of this community ever since.

I am occasionally asked if I am a forensic entomologist. The answer I give is the same: "why should I limit myself with a label such as that?" When I entered the field, there were precious few of us to begin with, and there were no programs that would admit to ruining a young scientist's mind by focusing on such pedestrian aims. The trend of turning all education into a path to one career or another will be the death of the university and of the mind. You can keep your *SCI* and your fancy consulting in Hollywood. My studies were never so constrained, and my mind and vision were never so limited.

Of course, when forensic entomology was not yet a recognized field, I was the go-to source for society's most critical needs in this regard. J. Edgar Hoover, from the FBI, himself once begged me to intervene in an intriguing homicide. I was hardly impressed by the man –Machiavellian in demeanor, but not in intellect or education, I'm afraid - but I did find Hoover charming enough, and the problems he presented puzzling enough, to agree to help him. That led to other calls and grew my fame, as it would, and I suppose I have testified ten or fifteen times over the years in courts across the country. I have never, of course, been rejected by any court. Nor have I ever been paid, beyond my expenses. The truth is the thing, you see, and the hunt!

It is therefore unsurprising that I should have been contacted when this whole Marmalard affair began to turn sour. If anything, the remarkable thing is that I was not contacted sooner! Bringing in some adjunct professor, indeed. I suppose I should be charitable; I have been on leave quite a bit lately. The knees, you see, they ache particularly badly when it rains.

Anyway, when Carmine – Dean DePasto; he was a student of mine in the late 1970s; more of a talker than a doer, really – told me that some entomologist from outside the Kalmia community was pointing fingers at our lab, I was scandalized. I mean, really, bringing in an outsider without so much as a call? Well, I suppose they won't make that mistake again, after the mess that this has become. But, really, all it comes down to is a lack of creativity – a lack of imagination.

It's not that that Pinto fellow is wrong, per se, at least in the basics that any entomologist would know. Certainly, the Formosan Subterranean Termite – named for Formosa, which is what we called Chinese Taipei in my youth – is a powerful example of xylophagy, which is what we of science call an herbivorous insect or animal whose diet consists principally of wood. But the term "super termite" is a ludicrous example of the unnatural approach taken by this supposed expert. There is nothing supernatural or even especially remarkable about this termite. It simply eats more than some others and lives in larger colonies. Its destructive capacity, while impressive, is hardly the matter of legend.

If there is one matter to which I would point about the Formosan Subterranean Termite, it is that it is a remarkably hardy organism. One of the reasons that I hypothesize that their colonies

grow so large is that they seem not to suffer the same levels of wear and tear as other insects. They are tough little ones! Their only weakness seems to be temperatures. They simply cannot tolerate the cold.

With that said, as a matter of entomology more generally, there are two basic responses to a weakness such as that, from the perspective of evolution. The first is simply to die. That sounds absurd, but it really is not. Most insects exist in such numbers that even losing millions of individuals per year is not a threat to the species. But species are always seeking improved genes, and reproducing in such numbers means that the odds in the genetic lottery are much higher. It's quite likely that a number – albeit a small number – will prove to have randomly obtained a mutation that makes them cold-resistant. Those survive, and those that do not have the mutation die. This is the basic Darwinian concept. What seemed like a curse – the mass death – actually becomes a blessing, as only the cold-resistant insects survive to mate with one another or to create a queen. In a random system of competition, one without the mass die off, that gene could take multiple decades to spread. But in a system where the species is ready for everyone without it to die, it takes single digit insect generations for the improved gene to be commonplace. In a fast-growing species like the Formosan Subterranean Termite, that's the blink of an eye, scientifically.

The second kind of adaptive function to a weakness to cold or other environmental hazards is akin to hibernation, although it is – of course – actually very different, biologically. Many insect species can become dormant for weeks, months, or even years before emerging. For example, certain North American *magicada* cicadas famously only emerge from burrows every thirteen or seventeen years. As a result, insects that develop adaptations to feast upon cicadas will die out. Take the cicada killer wasp, *sphecius speciosus*, for example. They only live three year, on average, and they are adept at killing cicadas. But, of course, they also have to survive during the cicada dormancy by killing other things. So if there was a mutation that led to a great increase in cicada killing ability, it would spread rapidly, like the cold-resistant termite, when cicadas were out, in Year 1. But that mutation would provide no advantage in years two through twelve, and it would be likely to be lost during the that time, when cicadas are dormant. As a result, there are few predators adapted to killing cicadas, which makes things rather a bit easier for the cicadas, one might say.

What does this have to do with the Formosan Subterranean Termite, you ask? That is indeed the question. Regrettably, the records of Chinese Taipei and its environment do not contain details on the predators that the species faced. But we know that insects adapt to their environment and that the critical pressure on Formosan Subterranean Termites were cold snaps. So it is only natural to conclude that the termites would develop an evolutionary response to cold. The observed examples seem no more resistant, so there was no resistant genetics that emerged. But the other adaptation, a life cycle adaptation, is completely plausible. So imagine that some Formosan Subterranean Termites are faced, in the late 1860s, with a cold period of weather. They burrow, as they are adapting. But then – poof! – the trees get cut down and covered in a lacquer, to be made into that glorious *Paifang* that marks this institution's triumphant history.

Since the Shang dynasty over 3000 years ago, Chinese crafts have relied on the *toxicodendron vernicifluum*, commonly known as the Lacquer Tree. Used properly, that can create a nearly impenetrable shell, as beautiful as it is weather resistant. And what does *this* have to do with the Formosan Subterranean Termite? Patience, patience. The insect can only adapt to its environment, and lacquer is not in that environment. So, sealed in, it does not perceive the environmental factors to awaken it. Perhaps it is not temperature it needs, but humidity. The

lacquer prevents humidity from penetrating, and, like Sleeping Beauty without her prince's kiss, they never awaken. Until, of course, one hundred and forty years of wear and tear combined with the wet winter of 2014 to crack open the lacquer at last. The Formosan Subterranean Termites hatch, as usual in the warmth of summer, and they immediately do what termites do best, and what the Formosan Subterranean Termite does best of all. They eat.

Now, I'll wager a year's Lady Grey tea that no linear-trained, agrarian entomologist would even think of that! Too busy racing off to get a conviction, no doubt. It's really just a tragedy that they fumigated the *Paifang* immediately, to prevent the termites from spreading. The genetic sequencing that was done shows mutations, but now we will never know to what end. Still, only a Kafka-esque system devoid of justice would convict Harper under these circumstances. There is a real, scientific possibility that it was nothing more than a cruel twist of fate and accident of evolution that caused the collapse.

The other thing that everyone seems to be forgetting is that the *Paifang* was old, very old and not in great shape. I remember in the late 60s when they did a shoddy rehab of the structure because it was about to fall over on its own. I also remember when they put a fresh coat of paint on it in the late 80s or early 90s because it was becoming an eyesore. I'll leave the discussion of structural soundness to others, but in my opinion from watching the *Paifang* grow as balky as my knees, no one was safe climbing on the glorious gate regardless of termite presence.

People ask me, of course, whether it could have been Harper. I do so doubt it. Mr./Ms. Marmalard was one of our finest young intellects, and s/he had wonderful manners. We used to speak for hours, s/he and I, about my work abroad and the world of entomology ahead of her/him. S/He had a bright future, to be sure, and I cannot imagine her/him throwing it away like this. In all the years I knew her/him, s/he never betrayed an ounce of ill will or malice. S/he was always very gentle with the insect specimens, and s/he was extremely well liked by her/his classmates and by members of the administration and senior faculty. I even threw my name on a paper or two that s/he had written to add some clout and distinction to her/his work. Second author, of course, as befit my status. I suspect Corin was peeved to be bumped to the third slot, but seniority and distinction have their privileges. In truth, I only really glanced at the effort, but the words seemed to be in the right places, you know.

In fact, I can't imagine anyone taking a disliking to Harper. Except perhaps Corin, which is understandable. Corin was always an average talent, the kind of individual who will remain a mediocrity within the academy. We tried to arrange a placement in Kansas or Utah or one of the Dakotas, I think, where s/he could be a junior faculty member. But s/he preferred to stay here, toiling without title or respect. I mean, no one would say it, but why would someone remain in a non-tenured track position in a field as vast as Botany? Corin simply was not up to the task, and still isn't, and the Dean and faculty have little faith in her/him. It's not her/his fault, really. Some are born to succeed. Others are not. Like the insects.

I can't say I'm surprised to find that Corin was abusing even the modest position with which s/he was entrusted. If anything, one should do the opposite: treat good work as mediocre and great work as barely good enough! That's how I always ran my department. To give credit for substandard work is the greatest of sins. In such a world, how can one tell those who are truly doing Kalmia quality work? I am sure that Corin got Harper hooked in this so-called paper scandal. After all, it was Corin who had all the power in that relationship.

How do I know all of this about Corin? Well, years ago, when s/he started, we published a paper together. I allowed Corin to be listed as first author. After all, I hardly needed another resume line at that point! As is my custom, I had myself listed second, because the work was done in the lab I built, and my work was the foundation, although Corin of course was writing primarily about botany and entomology was only a mere tangent. I was glad that I did, though, because almost as soon as it was published, the paper came under fire. There were a number of significant breakthroughs identified in the paper, but upon reflection, there were large portions that were suspiciously similar to other authors' work. Well, I don't stand for plagiarism, but I could hardly back away from the paper with my name on it! We fought back, tooth and nail, and after a few phone calls to some former students and colleagues, the accusers were thoroughly lambasted at the next ESA convention! I even received a formal letter of apology from one. Still, I never again trusted Corin that way. The texts were clearly lifted. No original thought at all. I would not be a bit surprised if s/he cheated her way into Zeta lota Pi, too.

And let me say, too, that much has been made of these missing lab records. Well, the lab is under my supervision, yes, but it's really Corin's lab. The absence of a termite colony death record is inexcusable, from a scientific perspective, but it is also understandable. A scientific mind is an expansive one, and many have been the times that I myself have drifted away from the lab, thinking of a subtle mutation in the *pediculus humanis captis* or mentally composing the opening paragraph of an article, or just reciting some Virgil to myself. I always returned to complete the paperwork, eventually, but there but for the grace of Providence go we all.

 Or perhaps dear Harper simply acquired poor habits from Corin. I doubt Corin would have wandered away, thinking of the *Aeneid* by Virgil himself, and yet our auditor found documentation missing from time to time. A lab must be run with precision, and one has to admit that it is possible that some termites could even have escaped, if Corin paid insufficient attention to the details of protocol. I'm not certain why they would have climbed the *Paifang*, particularly, but I suppose they could have had a taste for their ancestral home, could they not?

No, the whole thing just smacks of shoddy detective work and an effort to get to the conclusion without considering the possibilities. There is simply no way for that Pinto person to opine within a reasonable degree of entomological certainty that those insects were planted. Nor does this whole "pheromone" theory hold up. Pheremones, indeed. That's just the kind of thing someone suggests who knows not a bloody thing about entomology. First, there is no evidence that anyone had synthesized those pheromones. Second, if they had, they would have published it or patented it... honor or money, that's the thing! Third, pheromones don't break the rules of nature. The termite eats as fast as it eats.

I have read the statements of Corin Boon, Drew Pinto, and – of course – Harper, and there is nothing (beyond specious speculation) in there to suggest that things happened as the Commonwealth claims. One does not change entomology to suit a court case, any more than the sun revolves around the earth because some politician wishes it to be so. There is simply no way, under the science of termites as we know it today, for someone to plant a colony of Formosan Subterranean Termites and, a week later, have the kind of damage that was found on the *Paifang*. That takes longer, and any honest entomologist would admit that. Perhaps Corin Boon planted them earlier, to discredit Harper. Perhaps s/he let them escape, and they headed for a natural food source. Perhaps the termites simply emerged from their accidental century of hibernation.

But, whatever happened, there is no scientifically supported explanation for the idea that Ms./Mr. Marmalard could have gotten the termites to eat on the timeline as the prosecution

suggests it. To the contrary, the prosecution's whole theory rests on something that is, within - how do you say - a reasonable degree of entomological certainty, not true. 203 204 205 You may have your witch hunt and your conjecture. I, for one, will stick with science, with facts, 206 and with Ms./Mr. Marmalard. December 15, 2014 Lane Dorfman Signature DATE

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Exhibit List

Exhibit 1: ZIP Bylaws

Exhibit 2: Pledge Promise

Exhibit 3: ZIP National Anti-Hazing Policy Webpage

Exhibit 4: Photo Milkweed Paper

Exhibit 5: Police Report of Investigation, including Structural Engineering Report

Exhibit 6: Mandy / Harper Email Exchange

Exhibit 7: Photo of *Paifang* with close-up of termite infestation

Exhibit 8: Drew Pinto CV

Exhibit 9: Lane Dorfman CV

Exhibit 10: Harper Marmalard's Formosan Termite Log

Exhibit 11: Formosan Termite Habitat Map

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Zeta Iota Pi Bylaws

This document shall hereafter be the constitution of the Kalmia University Chapter of Zeta Iota Pi (hereinafter known as ZIP or Kalmia Zip)

Article I — Name and Purpose

The name of the chapter shall be the Kalmia University Chapter of Zeta Iota Pi. It shall honor the top students at Kalmia University by fostering a sense of collegiality, fraternity, and unity. ZIP obtain as its members the top students entering as freshman, as well as any other student who is deserving based on their achievements. Neither social nor athletic nor academic achievement should be given more weight than the other.

Article II — Laws

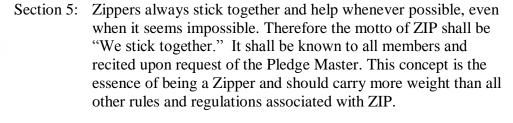
Section 1: This chapter of Zeta Iota Pi shall be governed by these bylaws, an honor association organized as a non-profit corporation under the laws of the Commonwealth of Pennsylvania, and the rules and regulations of the Kalmia University. These laws contain a full adaptation of ZIPs anti-hazing rules (1996).

Section 2: Membership shall only of students maintaining 3.5 Grade Point Average (hereinafter GPA) at the conclusion of each academic semester at Kalmia. Students who drop below a 3.5 GPA shall be "suspended" until the conclusion of the next academic semester in which his or her GPA is above a 3.5. Members who remain suspended for two (2) consecutive academic semesters shall be permanently removed from ZIP and shall not be readmitted.

Section 3: To become a member of ZIP, a student must be deemed worthy of membership by the Pledge Master.:

Section 4: Anyone invited by the Pledge Master to become a member must

complete a series of challenges, known as the Feats of Fortitude. Failure to complete said challenges to the satisfaction of a majority vote of the current membership is not permitted ZIP membership and barred from being admitted in the future.



- Section 6: All members of the chapter shall live in the chapter house unless otherwise excused from doing so by the President.
- Section 7: No money from dues shall be used to purchase alcoholic beverages.
- Article III Officer, Duties, and Elections
- Section 1: The executive officers of this chapter shall be the President/Pledge Master, the Vice President, the Treasurer, and the Secretary.
- Section 2: The Pledge Master shall be in charge of selecting new members and ensuring the orderly operation of the chapter. The remaining officer duties shall be proscribed by the President.
- Article IV Amendments to the ByLaws
- Section 1: These bylaws may be amended at any regular meeting of the chapter by a two-thirds vote of the active members of the chapter present and voting; provided notice of the proposed amendment shall been given at the two preceding regular meetings of the chapter.
- Section 2: Proposed amendments to these bylaws can be made by any member in good standing.

WE STICK TOCHTIED

2014 Pledge Promise

e, the chosen three of Kalmia University, of our own free will and accord, in the presence of these hallowed halls where so many distinguished men and women have walked before and will walk again, do hereby promise that the principles of this honor society as they have been explained to us accord entirely with our own views.

We acknowledge that these principles, outlined in the Zeta Iota Pi By-Laws, require training of the mind and body in order to become part of us. It is for this pursuit, this perception of existence, and a better understanding of the way that we function within it that we promise to become Zippers before we are acknowledged as such.

We promise to carry the right understanding, right intent, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration to all efforts made and all thoughts possessed while we pledge Zeta Iota Pi.

We promise to make full effort when completing the Feats of Fortitude. We understand that the Feats of Fortitude are opportunities to show our commitment to Zeta lota Pi and that we will never settle for commonplace. We will reach higher, stand taller, and climb to the apex of every mountain. It is on this lofty vantage where Zippers reside and in this place where Zippers thrive.

Throughout this pledge period, we acknowledge that the Pledge Master is our guide and our sage. We promise that his or her words matter most to us and his or her desires must be fulfilled. By giving of ourselves, we promise to give to Zeta lota Pi. The Pledge Master will ferry us across this river of transition, and we promise to trust and never to question.

We promise above all else, that we, the chosen three of 2014 from Kalmia University, will treat each other as we will treat members of Zeta Iota Pi should we be bestowed with membership in this, the most honorable and honored of societies. We promise to stick together and help whenever possible, even when it seems impossible.

All this we promise upon our honor, without equivocation, mental reservation or secret evasion of mind whatsoever.

=ZETA User Login Chapters **National Event Calendar** Message Board Zeta lota Pi is 100% against hazing of any type either through the initiation process or with respect to any honor society sanctioned activity. We fully understand and appreciate that a degree of dedication and devotion must be demonstrated during the Feats of Fortitude at the discretion of our Pledge Masters. However, a true sign of intelligence, which is the hallmark of membership in this most respected and hallowed organizations, is acceptance rather than alienation, safety rather than risk; and brains over brawn. If you feel that you are the victim of hazing or have witnessed hazing, report it by contacting the following: Your University's Office of Student Activity Local Authorities / Campus Police International ZIP Headquarters | hazing@ZIPhonors.org Our anonymous hazing hotline | 1-800-555-4982 Our code of Conduct and Rules of Disciplinary Procedure which cover acts of hazing can be found here. If you would like to review the applicable laws pertaining to your State, please visit our State Anti-Hazing Law Database. Leadership Team | Press Room | Contact | Site Map | ©2014 Zeta Iota Pi Home About |

Obtained from Mandy Pepperidge's Personal Computer by Kalmia Police Forensics on September 17, 2014 Webpage page last accessed on September 11, 2014 | 21.36.42

Haper Marmalard Botony 301- Boon March 21, 2014

Midterm Assignment

Milkweed is not a Weed and Does a Body Good Like Milk

Milkweed has a bad name, but it doesn't deserve it. It really needs to be rebranded as something more appropriate sounding like Milkstar or Milkmagic so people will not be scared to use it. In fact, its scientific name is Asclepius, which is after the Greek god of healing, because a lot of people through history have used it for healing purposes. There is a story about how the mahi mahi fish only became commercially viable after its name was changed from dolphin fish. No one wanted to eat a dolphin, but mahi mahi sounds appetizing. Same should go for Milkweed.

But, this is not a paper on marketing, though I think that is more interesting than the science here. This is a paper about what you can do with Milkweed.

Today society takes too many antibiotics. We should be happy to use natural remedies that do not need to be made in large factories where working conditions are bad. No, we need to use Mother Nature to the fullest. Milkweed can bring us ones step closer to this goal. Native Americans used the roots of the Milkweed plant as a way to cure dysentery. Why take something like an antibiotic when you can chew on a root? Why get a wart removed by a dermatologist and pay lots of money when you can put Milkweed sap on it? Why see an asthma doctor when you can have Milkweed tea? Sure Milkweed can be dangerous – it is a poison – but so is too much Tylenol.

In conclusion, Milkweed, like milk, does a body good! Mmmmm, Good!!!

Incident No: 09-1856-2014

Form No. KU 0981-21



Kalmia University Police Incident Report

Date(s)/Day(s) of Incident:	Incident Location:	Officer:	Badge Number:
September 12, 2014	Campus Center - Friendship	PO Diller	13459
	Paifang		
Time(s) of Incident:	Station Number:	Approved By:	Badge Number:
2115-2130	KU957/Pocono	Lt. Alaina Koltash	4976
Case ID:		Approval Date:	
KU-5671		September 19, 2014	

Attachments:	Initial Determination:
X Statement Forms Rights Warning and Waiver Form	X Criminal conduct (Hazing)
Property Checklist X Other	Accident

NATURE OF INCIDENT/DESCRIPTION: At approx. 2130 hours on the date of incident, I responded to multiple emergency calls reporting a fall from the Friendship Paifang. The victim (determined to be MANDY PEPPERIDGE, female, Freshman, d/o/b 1/14/1996) had attempted to climb the Paifang as part of a student organization (ZETA IOTA PI) initiation. Portions of the structure of the Paifang broke/collapsed, causing the student to fall from height of 15-25 ft. In addition to hitting the ground, the student was struck by debris from the Paifang.

Victim was found on ground, dressed in casual clothing, in pool of blood. Body was surrounded by wood on which small, ant-like insects were moving. Blood volume was most significant near head area, apparently due to profuse bleeding from blunt force wound to skull. Victim's arms were splayed, and her head was bent at highly acute angle indicative of severe neck trauma. No pulse or respiration was noted by responding officer. Campus emergency services arrived shortly after reporting officer and attempted to resuscitate. Victim transported to hospital via ambulance, pronounced dead upon arrival. Observation of Paifang showed moderate structural damage in area above body, roughly consistent with apparent volume and color of wood on ground. Movement of insects on broken region was visible, even from that distance.

PHYSCAL EVIDENCE: Pieces of the Chinese Paifang that broke off were secured and marked as evidence. Additionally, numerous small insects were not only on the wood, but contained within it were secured and marked.

WITNESS 1: ALEX OTTER (Freshman, ZIP House)
WITNESS 2: DANA STORK (Freshman, ZIP House)

See attached witness statements. Neither saw the moment of fall, but both were aware of plan to climb Paifang to ledge approximately 22 ft. from ground. Each saw PEPPERIDGE at a point approximately 18 ft. from ground, and climbing, shortly before hearing scream.

PEPPERIDGE climbing as part of Zeta Iota Pi initiation. Individual responsible for same identified by both witnesses as HARPER MARMALARD (Senior, ZIP House).

Obtained contact information from witnesses, comforted witnesses that fall was not their fault. Provided them cards with contact information in case they wished to share more later.

DISPOSITION: Recommend referral to Kalmia County District Attorney for potential violations of Pennsylvania anti-hazing statute.

Submitted: /s/ Diller, 13459 **Date:** Sept. 13, 2014

- **UPDATE 1 (9/14/14, 9:45 a.m.):** Witness OTTER called on my cell phone to advise s/he wished to discuss additional information. Met her/him at KUPD station. OTTER advises that MARMALARD involved in potential cheating, recently fought with PEPPERIDGE. OTTER advises PEPPERIDGE considered reporting cheating by MARMALARD. OTTER reports threats by MARMALARD against PEPPERIDGE. Called hospital, who confirmed recent Emergency Room visit by PEPPERIDGE.
- **UPDATE 2 (9/14/14, 12:30 p.m.):** Attempted to speak with MARMALARD at ZIP House. MARMALARD was not present. Occupants advised that MARMALARD works with insects, may be at insect lab.
- **UPDATE 3 (9/14/14, 2:00 p.m.):** Consent of University obtained, insect lab searched. Insects missing: wood-boring termites. There were also chemicals missing. Lab reports seized, placed into evidence. No explanation of missing insects.
- **UPDATE 4 (9/14/14, 4:00 p.m.):** Lab director Professor CORIN BOON interviewed. After being advised of rights, BOON made voluntary statement. BOON confirmed details of MARMALARD cheating. Additional ZIP students allegedly involved.
- **UPDATE 5 (9/16/14 9:30 a.m.):** Documents received from Registrar. Placed in case file as Attachment 1.
- **UPDATE 4 (9/16/14, 1:00 p.m.):** Case transferred to Kalmia County Police for investigation of potential homicide.
- **UPDATE 6 (9/17/14, 9:00 a.m.):** Autopsy Report Received. Cause of death: skull and/or neck fracture secondary to fall from height. Placed in case file as Attachment 2.
- **UPDATE 5 (10/21/14, 5:00 p.m.):** Zillias Engineering report received from Office of President Wormer. Placed in case file as Attachment 3. Matter referred to Kalmia County District Attorney.

ATTACHMENT 3

ZILLIAS ENGINEERING REPORT OF STRUCTURAL COLLAPSE, 09/12/2014

Dear President Wormer:

As requested, our structural engineering staff has conducted its examination into the collapse of a portion of the Friendship Paifang in close collaboration with the efforts of the Kalmia University Departments of Anthropology and Oriental Studies. We respect the importance of this matter and its cultural sensitivity to the relationship of Kalmia University and its sister institution, Peony University in Shanghai. The call from Assistant Secretary of State Dumas was particularly instructive. It's always nice to speak with a fellow alum.

Despite the challenges imposed by working with a structure we were barely permitted to touch, even under the strictest supervision, we have been able to reach several determinations regarding the collapse of the Paifang structure. The Paifang is made of a Chinese hardwood that has aged remarkably well, considering its age. It was covered in a lacquer that appears to have largely prevented any water or environmental penetration. Nonetheless, at its present age, the Paifang is not weight-bearing, and the University was wise not to allow students to climb it.

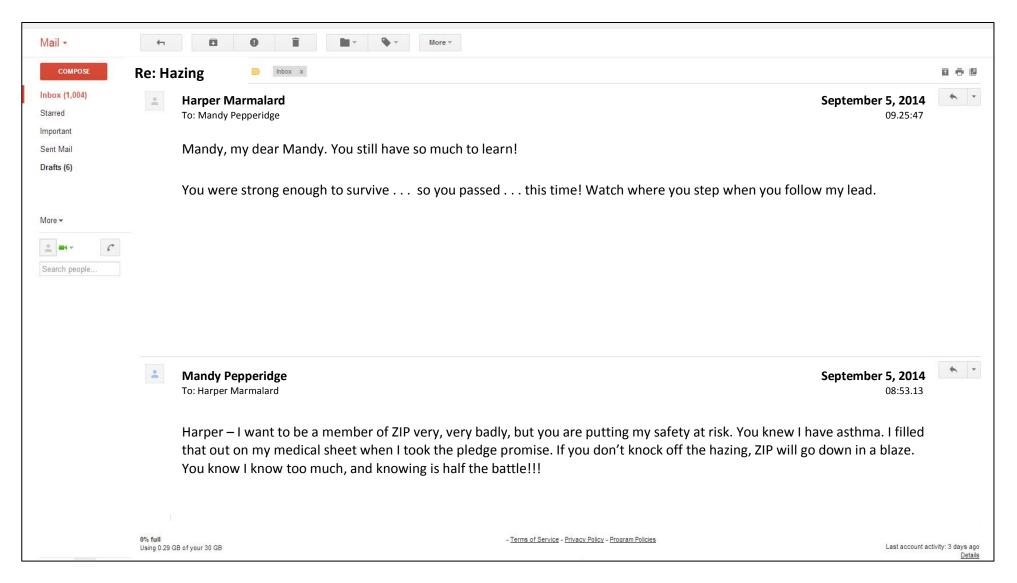
The area of the Paifang that collapsed was badly degraded by termites or similar wood-boring insect. The infestation damage was extensive, and the portion of the Paifang that fell had nearly disintegrated. Given the extent of the damage, it is impossible to determine whether the insects were inside the structure initially or bored into it from the outside. That portion of the Paifang is simply gone.

The damage also makes it impossible to determine whether the Paifang had suffered weather or other damage in the area which collapsed which could have contributed to its weakness, but the remaining portion of the Paifang appears to be in solid condition. The partial collapse therefore can be directly and scientifically attributed, within a reasonable degree of certainty, to the termite damage, which appears to have been limited to that section. Without the termites, we would have expected the Paifang to hold Pepperidge's weight, and this terrible tragedy to have been averted.

Nonetheless, we strongly advise that you retire the Paifang. At 150 years old, the structure should not be trusted again, even without termites, and we cannot promise that every termite was located and removed. Our efforts to drill fumigation holes were soundly rebuffed by your anthropologists. Your staff had interesting ideas about how the retirement could be accomplished in a culturally-sensitive manner.

We look forward to serving Kalmia University again, hopefully under better circumstances. Perhaps we can speak soon about the new library project?

Yours Truly, /s/ Tatum Zillias, Class of 1985 CEO and Chief Structural Engineer Certified Professional Engineer



Friendship Paifang – Formosan Termite Damage and Location







Fig. 1a – 1c: Wood removed from Kalmia University Paifang after Mandy Pepperidge's Death 9/2014

COMMENT: All samples pulled from top structure of Paifang showed considerable wear easily attributable to the Formosan Termite. Specified location of wood removal indicated in Fig. 2.



Fig. 2
Kalmia University Paifang circa 2013.

Gift from Poeny University in Luoyang, China circa 1860

Photo courtesy of Kalmia University Asian Studies Department (www.kalmiauniversity.edu/ASD)

COMMENT: Area most affected by Formosan Termite damage is bracketed in red.



Drew Pinto, Ph.D.

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EDUCATION

Purdue University, Ph. D., Entomology, 1992

Purdue University, M.S., Entomology, 1988

High Departmental honors

Purdue University, B.S., summa cum laude, Biological Engineering, 1986

Minors in Architectural Engineering, Crop Science

Captain, Tennis Team

EXPERIENCE

American Forensic Entomologist Consultancy, LLP, Partner, 2010-Present

Investigate legally significant questions involving insects. Give opinion and, when necessary, testimony on questions including entomologic indications of time of death, effect of insects on state of bodies, and insect-structural interactions.

Representative cases:

- Texas v. Brunella Genetic analysis of species found on victim matched those near defendant's home, contrary to his account, justifying search warrant.
- Vermont v. Shelly Date of death established through insect larvae, leading investigators to re-evaluate timeline, identify true killer.
- Montana v. Noreen In death of family in home collapse, established that wood boring insect infestation was not naturally occurring, leading to conviction.
- U.S. v. Beth Determined murder was committed with subcutaneous injection of eggs of brown recluse spider, leading to apparent accidental death.

Pinto Entomology Consulting, LLC, Member and Chair, 2002-Present

Consult on organic and entomological solutions to agricultural concerns with major national and international companies including Archer Daniels Midland, ConAgra Foods, and Love a Cherry.

Adjunct Professor, Purdue Depts. of Entomology and Agricultural Engineering, 2006-Present

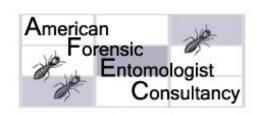
Adjunct Professor, University of Georgia Dept. of Entomology, 2004-2007

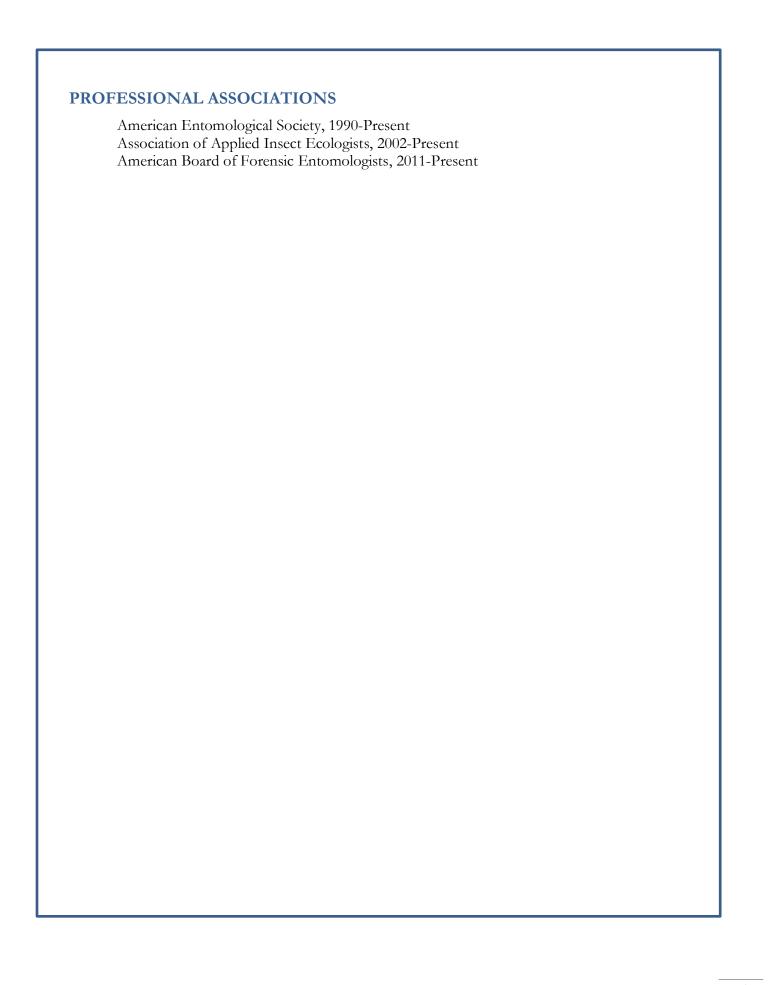
Federal Bureau of Investigation,

Senior Response Technician, Evidence Response Team, 1999-2002 – Member and occasional leader of forensic unit responsible for crime scene processing, evidence collection, and on site analysis.

Staff Entomologist, National Criminal Laboratory, 1994-1999 – Processed entomological evidence collected at crime scenes, analyzed it for information material to criminal investigations.

Entomology Fellow, National Criminal Laboratory, 1992-1994 – Trained in forensic entomology.







LANE DORFMAN, Ph.D., CH

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EDUCATION

Darwin College, Cambridge University, Ph.D. Entomology, 1964

Yale University School of Forestry, M.S. Entomology with High Honors, 1954

Oberlin College, B.S. Biology, magna cum laude, 1952

Phi Beta Kappa Zeta Iota Pi NCAA Champion, Squash Singles

Honorary Doctorates:

University of Leicester, McGill University, University of Melbourne, Faber College

EXPERIENCE

Kalmia University, Department of Entomology, 1964-Present

Chair Emeritus, 2009-Present Chair, 1978-2009 Simpson-Day Distinguished Professor of Organismal Biology, 1970-Present Assistant Professor, 1964-1970

Chair emeritus and professor in prestigious department within Kalmia University, one of North America's top research and undergraduate institutions. First author on over fifty publications, three treatises, twenty-two chapters, and the leading text in organismal entomology. Credited by United States Patent and Trademark Office as originator of over thirty innovations in science and technology.

RECENT PUBLICATIONS

DORFMAN'S ENTOMOLOGY (Cambridge University Press, 17th Ed., Corin Boon, Ed.). Dorfman, Widdoes *On Mendel's Flies: Drosophila*, Nature, Vol. 514, Issue 7524 (2014)

Marmalard, Dorfman, Furst, *Synthetic Compounds and Insect Behavior: Pheromones – Powerhouse or Powerless*, Annals of Entomological Association of America (March 2013)

Daughton, Dorfman, Weller, *Mandotea or Armadillidiidae?: Challenges of Identification and Classification*, Journal of Applied Entomology, Vol. 136, Issue 2 (March 2012)

Belushi, Dorfman, Hulce, Chapter, *Bacon's Pathology of Common Insect Species*, Princeton University Press, 2009

PROFESSIONAL ASSOCIATIONS AND AWARDS

Too numerous to fully enumerate. Representative associations and honors include:

Order of the Companions of Honor Royal Entomological Society British Entomological and Natural History Society American Entomological Society Entomological Society of Canada

Lead Investigator: Harper Marmalard
Lab Director: Corin Boon, Ph.D.

Term: Fall 2014

Thesis: Effects of Chemical and Natural Catalysts

on Colony Behavior and Reproductively

Coptotermes Formosanus

Formosan Subterranean Termite



Activity Log

DATE	ACTIVITY	COMMENTS	INITIAL
8.18.14	Set sub-colony for subdivision experiment on productivity	Queen and King look healthy and ready to expand colony to beta location. Primary idea is to modify the types of specialties through influence.	НМ
8.19.14	Moved existing egg bank & Larvae to beta location	It is not expected that the loss of the starter colony will affect the overall annual production. Having a fresh predetermined sub-colony will help with data collection.	НМ
8.20.14	Initial collection of Queen pheromone secretion	Failed! Ok – this is going to be way harder than I originally though. But, initial test requires a larger amount of secretion in order to analyze and influence.	НМ
8.21.14	Second attempt of pheromone secretion collection	Success! Will be used to promote additional development of winged reproductive over non-winged from nymphs.	НМ
8.22.14	Initial collection of King pheromone secretion	Success! Will be used to promote additional development of workers over soldiers from larvae.	НМ
8.25.14	Further design of habitat	Starting to look really nice in there! I am really proud of the water source to wood ratio at the beta site. Perfect environment for rapid expansion.	НМ
8.26.14	Attempt to separate collected secretions into active pheromone components	Failed! Alpha colony is looking particularly strong though. Workers at Alpha colony are moving through food source at strong rate.	НМ
8.27.14	Attempt to separate collected secretions into active components	Failed! Observation: Alpha colony nymphs are turning into supplemental reproductive for beta colony. I will do my best to keep them separated to keep integrity.	НМ
8.28.14	Additional secretion collection	Forced to go back and collect more secretion samples from Alpha Queen and King for experiment. At least I am getting good at this part!	НМ
8.29.14	Attempt to separate collected secretions into active components	Failed! concerned that beta larvae and nymphs are developing too quickly. There won't be time to introduce secretion extracts. I know it's still early!	НМ
8.30.14	Attempt to separate collected secretions into active components	Failed! I admit it! I'm not good at chemistry. I should find someone to help me with this! Today has not been a good day at all. So FRUSTRATED!	НМ
9.1.14	Additional secretion collection	Back to the well. Concerned that collection of secretions is putting stress on Alpha Queen and King. I should be kinder to the ones I love SUPER TERMITE TIME!	НМ
9.2.14	Abandon separation plan and will just adjust amount of secretion supplied	By increasing the amount of secretion provided to the larvae & nymph different specialties will be produced. Hypotheses: more will make more queens and workers.	НМ

9.3.14	Initial dosage: Beta larvae	Fingers crossed that this works. I'm not even really sure	НМ
	3	I am providing the secretion correctly. Without gland	
		secretion from the King only time will tell.	
9.4.14	Built semi-permanent blockade	Too many reproductive Alpha colony specimens are	HM
	between Alpha and Beta colony	attempting to enter Beta colony. Even saw a small	
0.5.1.1	T 111 D	swarm in the enclosure.	1104
9.5.14	Initial dosage: Beta nymphs	Not really sure still if this is right, but I am noticing	HM
		growth amoung larvae which suggests that some	
9.6.14	And I am waiting! No action	nutrients are permeating through dosage mechanism. It was a nice day today at the lab. I just stared at the	НМ
9.0.14	And I am waiting! No action	colony and enjoyed. Sometimes I have to remember	ПМ
		that this is what I love most. It is more than science!	
9.8.14	Second dosage: Beta larvae	It looks like there has been some effect on colony.	НМ
J.0.14	Second dosage. Beta larvae	Visible accounts indicate increased number of workers	11111
		from Beta larvae over Alpha larvae.	
9.9.14	Second dosage: Beta nymphs	Again, I am seeing some results. There seems to be a	НМ
		greater proportion of winged v. non-winged	
		reproductive species forming! Nice!!! Way to go me :)	
9.10.14	And another day of waiting! No	I am very curious to see what I find out tomorrow! First	НМ
	action	count of beta colony! Alpha colony is looking	
		particularly strong this term. Proud of my team!	
9.11.14	Count results	Spent lab session w/ beta colony. There was an	НМ
	2% increase in workers	increase in desired production of certain types. Within	
	 1.8% increase in winged 	standard deviation :(MORE Research required.	

