

1 VIRGINIA:

2 IN THE CIRCUIT COURT OF THE COUNTY OF STAFFORD

3
4 -----
5 COMMONWEALTH OF VIRGINIA :

6 vs. : CR05000809-02

7 JOHN JOSEPH ROGERS : CR05001101-00,01,02,03

8 -----
9 Complete TRANSCRIPT of all the evidence and other
10 incidents of the eighth day of trial in the above styled
11 case, when heard on August 25, 2006, at 9:03 a.m., before
12 Honorable J. Martin Bass, Judge, with a jury.

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1 it. Thank you.

2
3 NEAL HASKELL, Ph.D., a witness,
4 being called for examination by counsel for the
5 defendant, first being duly sworn, testified as
6 follows:

7
8 DIRECT EXAMINATION

9 BY MR. FLOOD:

10 Q Good morning, Doctor Haskell.

11 A Good morning.

12 Q Could you state your name for the record,
13 please?

14 A Neal Haskell. It's N-E-A-L H-A-S-K-E-L-L.

15 Q I notice you have your collar up in the
16 bock.

17 A Oh, okay. Well, let's fix that.

18 Q Ordinarily, we tell our witnesses that
19 they have to speak up, but I think you're not going to have
20 any problems communicating to the jury. What's your occu-
21 pation, Doctor Haskell?

direct - Neal Haskell, Ph.D.

1 A I'm an international forensic entomology
2 consultant. I'm also a college professor.

3 Q And where do you -- where are you employed
4 as a college professor?

5 A A little Catholic School in northwest
6 Indiana, Saint Joseph's of Indiana in Rensselaer, Indiana.

7 Q Okay. What is forensic entomology?

8 A In the general terms, forensic entomology
9 is the study of insect or entomology associated with courts
10 of law.

11 Q Now, starting with your bachelor's degree,
12 would you please give the jury an overview of your education
13 from your bachelor's degree to present.

14 Q I received a bachelor of science degree
15 from Purdue University in entomology in 1969. Later on, I
16 went back to graduate school and completed a master of
17 science degree in forensic entomology from Purdue University
18 in 1989. And then, in 1993, also, from Purdue University, I
19 finished my Ph.D., that was also in forensic entomology,
20 specifically, in forensic entomology, studying that specific
21 field.

direct - Neal Haskell, Ph.D.

1 Q And pursuant to your Ph.D. studies, did
2 you complete a dissertation?

3 A Absolutely. Master's, I did a thesis for
4 my master's and a dissertation for my Ph.D.

5 Q When you get a degree in forensic ento-
6 mology, do you just take courses on bugs?

7 A Absolutely not. What we try to do is
8 associate -- put the -- draw the association between the
9 insects that are going to be colonizing the decomposing
10 humans and other animals and then, also couple that with the
11 understanding of the human body and some pathology and human
12 anatomy and physiology, so that we can relate to the forensic
13 pathologist when they do their reports in determining the
14 autopsies and cause and manner of death. Also, importantly,
15 with that is the study of the climatological aspects because
16 it's the temperatures and the climate that -- that affect the
17 behavior of the insects and drive their growth and develop-
18 ment because they're cool blooded creatures.

19 Q Now, with respect to your education and
20 training, Doctor Haskell, did you take courses and studies
21 outside entomology, specifically?

direct - Neal Haskell, Ph.D.

1 A Absolutely.

2 Q And what areas did you study as part of
3 your course work?

4 A Primarily, as I said, climatology. Also,
5 medical school courses. As I said, I wanted to learn about
6 how the interaction between the insects and the human body
7 would take place when you have decomposition. I studied
8 decomposition. And then, also, a little bit of forensic
9 anthropology.

10 Q Now, you just word -- used the word,
11 decomposition, which has been discussed in various parts of
12 this trial. Can you tell the jury, from your perspective,
13 what decomposition is?

14 A Decomposition starts immediately after
15 death and, in rare cases, it can start before death, but it
16 starts immediately after death and goes through a progression
17 of many bio -- biochemical changes over time and decompo-
18 sition is primarily affected in how fast or how slow it
19 progresses with regards to temperature and with regards to
20 geographic location, season of the year and things like.

21 Q In your training and education, did you

direct - Neal Haskell, Ph.D.

1 receive or complete course work in studying decomposition and
2 time of death issues?

3 A Primarily in the study -- when I studied
4 pathology and, specifically, forensic pathology at the
5 Indiana University School of Medicine, -- we definitely
6 studied those issues, in particular, because it's going to be
7 insects that really help determine the time of death.

8 Q So, is it fair to say that forensic ento-
9 mology includes decomposition and time of death issues and
10 stuff?

11 A Absolutely.

12 Q And that's a significant part of your
13 course work in completing your Ph.D., is that correct?

14 A Absolutely.

15 Q Now, since receiving your Ph.D., have you
16 received specialized training in decomposition and time of
17 death issues?

18 A Well, with regards to -- with regards to
19 research, of course, a good scientist will try to continue to
20 do research long after they've had their degrees and, of
21 course, many of the research studies that we've done in the

direct - Neal Haskell, Ph.D.

1 past generate additional questions for further research
2 studies that need to be done. So, I've been active in the
3 last twenty-five years doing all sorts of research with
4 regard to decomposition and the insects associated with that.

5 Q Can you give the jury some -- some sense
6 of the type of research that you've done?

7 A Well, I've looked at -- looked at hundreds
8 of -- thousands of dead animals. Pigs, primarily, but we --
9 you know, we look at and study rotting deer carcasses and
10 dead dogs and dead possums and racoons and whatever else we
11 can find along the roads and so forth. A lot of my survey
12 techniques will be driving across the country or driving
13 across the state, whatever, we'll find road kills. We mean-
14 ing my family, my kids and other colleagues. We get a lot of
15 information about where we find different flies at different
16 times of the year by stopping at these road kills and getting
17 the insect net out and collecting the adult specimens that
18 are associated with them.

19 Q Have you done similar studies involving
20 human beings?

21 A Yes, I have. I've had one of the unique

direct - Neal Haskell, Ph.D.

1 -- unique opportunities to study human, actual human -- a
2 number of timed and designed human decomposition studies at
3 the Anthropological Research Facility at Knoxville,
4 Tennessee, better known as the Body Farm.

5 Q Okay. Can you describe, briefly, for the
6 jury what -- what the body farm is and what is the purpose of
7 the body farm and, when you go there, what are you doing?

8 A Well, originally, the Body Farm, the
9 Anthropological Research Facility at the University of
10 Tennessee, Knoxville was designed by the anthropology depart-
11 ment, the physical anthropology department, the anthropolo-
12 gists, of course, are those folks that study the bones. And
13 most of the bone collections were in three major collections
14 across the country and were not representative of our modern
15 day population, so Doctor William Bass and others across the
16 country decided they would try to have donated bodies of
17 known sizes and race and sex and so forth from which to start
18 from and then, take them down to the skeletal remains. We'd
19 have a freshly dead human that was donated to University of
20 Tennessee, Knoxville. They would take that body to skeletal
21 remains and then they would -- they had the information about

direct - Neal Haskell, Ph.D.

1 the -- the pre-death -- post -- antemortem factors of this
2 individual and then they would -- then they could determine,
3 based on the bones, measurements of the bones and lengths and
4 girth and so forth of different bones, how that -- how those
5 predeath characteristics resulted in a postmortem bone human
6 skeletal computations. So, Doctor Bass designed this unique
7 facility where he was allowed to place out humans and --
8 freshly dead humans that had been donated to the facility and
9 then watch the progression of decomposition. Well, what
10 Doctor Bass realized, after doing this for a few years --

11 MS. POLINSKE: (interjecting) Judge,
12 I'm going to object to him telling what Doctor Bass
13 -- he hasn't been qualified as an expert yet and I
14 don't know what his participation in this particular
15 study was. I object to this line of testimony.

16 THE COURT: And I think the question
17 was what was the Body Farm in Knoxville, so -- let's
18 go on to something else. Sustained.

19 Q Now, that the jury, sort of, has a basic
20 understanding of what the Body Farm is, I'd ask you, have you
21 done significant research and spent significant amount of

direct - Neal Haskell, Ph.D.

1 time at the Body Farm researching decomposition?

2 A Absolutely.

3 Q Okay. In your training and education,
4 have you had opportunity to be involved in autopsies?

5 A Absolutely.

6 Q Were you, at one point, employed or worked
7 as a diener?

8 A I was not employed. I worked -- worked in
9 my forensic pathology study as one who assisted in the -- in
10 the autopsies with the forensic pathologist and the diener
11 would be a term that would be used for what, basically, I
12 did, was the -- the initial dissections of the remains.

13 Q Now, based on your research and training,
14 have you published in the area of forensic entomology,
15 decomposition and time of death issues?

16 A Yes, I have.

17 Q And have you published in peer review
18 journals?

19 A Yes, I have.

20 Q And just so the jury understands, what's a
21 peer review journal?

direct - Neal Haskell, Ph.D.

1 A A peer review journal would be -- or a
2 peer review publication would be a publication where
3 scientists of -- of my qualifications and discipline would
4 have an opportunity to look over what I've written and then,
5 make suggestions on how maybe improve -- improve the public-
6 ation and make it a better publication. So, it's reviewed,
7 usually, by two folks, maybe -- in some of the book chapters
8 I've done, I know we've had reviews of maybe three or four.

9 Q Okay. You mentioned book chapters.
10 You've also published chapters in books?

11 A Yes, I have.

12 Q And what kind of books have you published
13 chapters in, Doctor Haskell?

14 A Books that -- that are, more or less,
15 textbooks for medical doctors and lawyers trying to get a
16 grasp and understand forensic entomology and forensic science
17 as a whole. I published, with Doctor Werner Spitz, the --
18 his major work in forensic pathology, I did the main chapter
19 for him. I worked with Doctor Syril Wecht and -- on a number
20 publications. *Forensic Science*, a big volume that he does on
21 the different forensic science disciplines. And then, I

direct - Neal Haskell, Ph.D.

1 think he did a chapter called *Forensic Science and the Law*
2 and another book chapter in a textbook called *Legal Medicine*
3 and then, of course, my -- my first claim to fame with
4 regards to getting a procedural guide out for police officers
5 and coroners and medical examiners is that I was -- I was
6 associated with the publication of a book called *Entomology*
7 *and Death*, back in 1990.

8 Q Is that this book right here?

9 A Yes, it is.

10 Q And is that a standard guide in the field
11 of forensic entomology?

12 A It absolutely is and it's been -- I work
13 with a lot of foreign countries with forensic pathologists
14 and forensic entomologists in these foreign countries around
15 the world and that book has been established, basically, as
16 the -- in part or in total, some of the procedures that are
17 done when we investigate a decomposing body at a site any-
18 where in the world.

19 Q Now, you mentioned a chapter in Doctor
20 Werner Spitz's book. What's the title of that book?

21 A *Medicolegal Death Investigation*, I think,

direct - Neal Haskell, Ph.D.

1 I'm not a hundred percent sure on the title.

2 Q And, as you know, is that a standard text
3 in the field of forensic pathology?

4 A It certainly is.

5 Q And did you publish or did you -- the
6 chapter on forensic entomology that your wrote appeared in
7 that book, is that correct?

8 A That's correct.

9 Q Prior to your testimony here today, have
10 you previously been qualified as an expert in the areas of
11 forensic entomology, decomposition and time of death?

12 A Absolutely.

13 Q And, in that capacity, have you testified
14 in courts of law in the United States on those issues as an
15 expert?

16 A Yes, I have.

17 Q And can you give the jury some -- some
18 sense of how many times you've testified as an expert witness
19 on forensic entomology, decomposition and time of death?

20 A Approximately, under oath, about a hundred
21 times.

direct - Neal Haskell, Ph.D.

1 Q Have you testified in capital cases,
2 Doctor?

3 A Many.

4 Q Have you testified in federal court?

5 A Yes.

6 Q And have you given opinions, based on your
7 experience and training, in the areas of forensic entomology,
8 decomposition and time of death?

9 A Absolutely.

10 Q Are you currently retained in Virginia on
11 other cases involving your experience and training as an
12 expert witness?

13 A That's right. I've got -- I've got a
14 subpoena for Virginia Beach right now. I think we go in
15 September for the prosecution.

16 MR. FLOOD: May I approach, Your
17 Honor?

18 THE COURT: Yes, sir.

19 Q Showing what's been marked as defendant's
20 exhibit twelve, I'd ask if you could identify that for the
21 jury.

direct - Neal Haskell, Ph.D.

1 A That's my curriculum vitae.

2 MR. FLOOD: At this point, Your
3 Honor, I would offer Doctor Haskell's curriculum
4 vitae as defense exhibit twelve and him as a quali-
5 fied expert in the field of forensic entomology,
6 decomposition and time of death issues.

7 THE COURT: Ms. Polinske, do you wish
8 to ask questions of the witness on his qualifi-
9 cations? And do you have any objection, at this
10 point, to Defendant's Twelve?

11 MS. POLINSKE: No.. Your Honor, no
12 objection to either defense twelve or his acceptance
13 as an expert.

14 THE COURT: Then Doctor Haskell is
15 accepted as an expert witness in the field of
16 forensic entomology, decomposition and time of death
17 issues, and defendant's twelve is received without
18 objection.

19 NOTE: The above referred to
20 curriculum vitae is now being marked and filed by
21 the Court as Defendant's Exhibit Twelve.

direct - Neal Haskell, Ph.D.

1 Q Now, Doctor Haskell you became engaged in
2 this case last week, is that correct?

3 A That's correct.

4 Q And you were provided materials to review
5 in anticipation of your involvement in the case, is that
6 correct?

7 A Yes.

8 Q And could you tell the jury the materials
9 that you reviewed in anticipation of your testimony here
10 today?

11 A The material that I reviewed and looked at
12 included the finial autopsy report from Doctor Gormley,
13 7/1/05; the amended autopsy report, Doctor Gormley, 8/12/05;
14 report of the medical examiner, Doctor Phillips, 4/10/05;
15 testimony of Harvey Carey; stipulation regarding times
16 related to body recovery, transport and cooling; approxi-
17 mately, a hundred photos or so regarding the scene and
18 autopsy; two forensic toxicology reports reporting ethanol
19 content in blood and urine; weather conditions from Quantico
20 and Manassess for April 6th thru 10, 2005; and then, a few
21 miscellaneous police reports.

direct - Neal Haskell, Ph.D.

1 Q Have you -- I may have missed it. Did you
2 review the testimony of the first person to observe --

3 A (interjecting) Yeah. That was -- that was
4 Mr. Carey, I believe.

5 Q Now, when you become engaged in a case
6 like this, Doctor Haskell, what are the factors that you
7 consider or look at when you evaluate the time of death of a
8 particular person that's found? In this case, Ms. Madaris?

9 A Well, with forensic entomology, we're
10 looking at the presence or the lack thereof of the insects
11 that would come in and colonize and we take in consideration
12 season or time of year. We take in consideration, of course,
13 temperatures for the period in question. We take in consid-
14 eration environmental factors that might affect, positively
15 or negatively, temperatures and the behavior of those
16 insects. And then, of course, if there are insects present,
17 we would take those into consideration, too.

18 Q And in this case, did you take those
19 factors into account?

20 A Absolutely.

21 Q Now, with respect to the insects, are you

direct - Neal Haskell, Ph.D.

1 familiar, based on your experience and training and familiar-
2 ity with the literature, the types of insects that are
3 indigenous to Virginia?

4 A Yes. I -- I've studied. I've had
5 probably maybe eight, nine, maybe even up to a dozen death
6 cases from Virginia directly, so I've have an opportunity to
7 see those specimens at different times of the year, too.

8 Q And in this case, in particular, did you
9 take into account the weather -- the prevailing weather
10 conditions at the crime scene or near the crime scene?

11 A I certainly did.

12 Q Okay. Based on your experience and
13 training, Doctor, and the materials that you have reviewed in
14 anticipation of your testimony here today, do you have an
15 opinion, within a reasonable degree of scientific certainty,
16 as to the time of death of Ms. Madaris?

17 A I certainly do.

18 Q And what is that opinion?

19 A I believe that at least eighteen hours
20 would need to have transpired for a minimum time and it could
21 be out to thirty-six or thereabouts, maybe even more.

direct - Neal Haskell, Ph.D.

1 Thirty-six hours.

2 Q Now, what is that opinion based on?

3 A It's based on a number of factors, includ-
4 ing the time of the year. It's based on the observations of
5 Mr. Carey and the bugs that he saw on the remains. It's
6 based on the temperature for the prevailing days. I assessed
7 four days, from the 6th thru the 10th, looked at those. And
8 then the descriptions of flies and so forth present at the
9 scene on recovery. And then photographs of the remains while
10 at the site before recovered and brought to autopsy.

11 Q Now, going in reverse order, what is
12 significant about photographs that you reviewed in this case
13 that informed your opinion?

14 A Well, in the photographs at the scene, I
15 see -- I see putrefaction occurring up in the face area where
16 we had tremendous amounts of trauma to that area, and darken-
17 ing and blackening of the tissues, consistent with putre-
18 faction. Putrefaction being the process by which external
19 organisms outside, bacteria, molds and so forth, will start
20 to break down the tissues, the individual cells of those
21 tissues and render them into a -- into a fluidly mass of

direct - Neal Haskell, Ph.D.

1 goop, eventually.

2 Q Based on your training and experience,
3 Doctor, can you give an opinion, to a reasonable degree of
4 scientific certainty, if the state of decomposition that you
5 observed in those photographs is consistent with Ms. Madaris'
6 body being at the crime scene for twelve hours or less?

7 A It is not consistent.

8 Q Now, you've used a word here, and although
9 I think the jury's heard this a few times, could you just
10 tell me what you mean by putrefaction? What -- when you use
11 the term, putrefaction, what are you saying?

12 A Putrefaction is the external breakdown --
13 in other words, from outside -- of the cells based on
14 bacteria and other microorganisms that will generate and
15 secrete chemicals that break down the cell membranes. Now,
16 animal cells also have substances in each cell which will
17 rupture upon death and then dissolve the cell membranes from
18 the inside, so -- but putrefaction is the external effect of,
19 primarily, microorganisms exerting their biochemicals to
20 breakdown the cell tissues and the cellular material of an
21 organism.

direct - Neal Haskell, Ph.D.

1 Q Is it fair to say that putrefaction is a
2 biochemical process?

3 A Absolutely.

4 Q Is -- are biochemical processes, like
5 putrefaction, affected by temperature?

6 A Yes. There's -- all of these chemical
7 reactions are affected by temperature.

8 Q In the scientific community, is there a
9 theorem or an understanding about the ratio of temperature to
10 the -- to a biochemical process?

11 A Certain biochemical processes are -- and
12 kind of a rule of thumb with regards to materials passing
13 through cell membranes and the cell's membranes reaction to
14 certain things is about, for every ten degrees centigrade,
15 every ten degree centigrade higher or lower -- if it's lower,
16 then it'll double the time it takes for that reaction to take
17 place. If it raises by ten degrees, the rule of thumb it
18 will speed up that process by about half -- or twice. It'll
19 be twice as fast.

20 Q Okay. It's my understanding that your
21 opinion here as to the time of death is informed by primarily

direct - Neal Haskell, Ph.D.

1 three factors; decomposition, the prevailing weather
2 conditions and the presence or lack of insect activity, is
3 that correct?

4 A That's correct.

5 Q Now, moving to temperatures, Doctor, did
6 you review material related to the temperatures here?

7 A Yes, I did.

8 Q And you're familiar with the prevailing
9 temperatures at or near the crime scene, is that correct?

10 A That's correct.

11 Q And, in your opinion, are those temper-
12 atures particularly cool when it comes to bug activity?

13 A Particularly cool and even cold.

14 Q Okay. Could you give the jury some under-
15 standing about when flies and other types of insects that are
16 attracted to human or -- human or animal remains become
17 active?

18 A Through our studies and through the
19 literature and through other studies, we've found that, kind
20 of, around fifty degrees is a start place above which the
21 critters kind of think about starting to get flying and warm-

direct - Neal Haskell, Ph.D.

1 ing up and so forth. When we move into the upper fifties and
2 into the lower sixties, we have -- we have a situation going
3 where, well, yeah, they might, or they might not. It can be
4 -- there can be delays. When we get into temperatures
5 seventy-five -- seventy-five to ninety, for instance, that's
6 hot and, with regard to some of my forensic fly friends, they
7 can be -- they can be active within a matter of seconds or a
8 matter of minutes of a person dying if they're out and avail-
9 able in the environmental conditions and under temperature
10 regimes that are hot.

11 Q Based on your training and experience,
12 including your research at the Body Farm, I want to ask you a
13 question about fly activity and, specifically, fly laying
14 activity. Based on your experience, can you testify to a
15 reasonable scientific certainty whether flies lay eggs at
16 fifty-five degrees or below?

17 A Yes, I certainly can, because I did a two
18 year study at -- in Indiana regarding that very -- that very
19 subject and --

20 MS. POLINSKE: (interjecting) Judge,
21 objection, non-responsive. The question is what's

direct - Neal Haskell, Ph.D.

1 his opinion, yes or no.

2 THE COURT: Well, he was -- he said,
3 yes, he can, based on -- why don't we get to what
4 he's going to tell us.

5 Q And what's your opinion, Doctor?

6 A Fifty and below, no.

7 Q How about fifty-five?

8 A Maybe. They might be active and maybe --
9 may be laying eggs, but really taking a long time to get it
10 done.

11 Q And very unlikely?

12 A Oh, very unlikely. Yes.

13 Q And what is that opinion based on, Doctor?

14 A Again, as I was going to say, research, a
15 two year -- two year study regarding my dissertation on when
16 the flies become active, when they lay eggs and when they
17 quit. It's basically over a day like -- a day period called
18 the diurnal activity of the blowflies.

19 Q Now, you used the word, blowflies. Could
20 you explain to the jury what a blowfly is?

21 A Yes, I sure can. A blowfly is not just

direct - Neal Haskell, Ph.D.

1 one kind of fly. A blowfly is a family or a grouping of
2 flies. You'd recognize these. I'm sure, most of you, if not
3 all of you, have seen these. They're brightly metallic green
4 and big blue metallic colored flies that we see around the
5 dead animal out along the road or we see, possibly, around
6 our garbage can because they're coming in for the meats that
7 are there or, in the cooler times of the year, particularly
8 in the fall, you'll be sitting in by your reading lamp and
9 darkness is closing down and you hear this big loud buzzing
10 fly and it'll be bang, bang, bang in the
11 lampshade. Those are our blowfly friends. And those are the
12 ones that are, specifically, the primary indicator species or
13 group that we use and, as I said, there are -- they're not
14 just one kind of a fly. There are about ninety different
15 species or kinds of blowflies in North America, of which
16 about -- about forty-five to fifty-five of them are used
17 across North America in forensic work.

18 Q As a general matter, when we were talking
19 about fly laying activity by blowflies, are these the species
20 of blowflies that you're talking about?

21 A Yes.

direct - Neal Haskell, Ph.D.

1 Q And to reach a particular conclusion, you
2 actually have to know the species of a fly, isn't that
3 correct?

4 A Well, we would like -- I mean, that would
5 be the best. Can we -- can we make estimates based on not
6 knowing a species, yes, we can, but we have to widen the
7 confidence interval that we make. We -- instead of being
8 able to say, plus or minus twenty-four hours, we may have to
9 go out to plus or minus seventy-two hours because we have to
10 encompass all the potential species that are available at the
11 particular time and season.

12 Q And you're familiar with the blowflies
13 that are indigenous to Virginia, is that correct?

14 A I certainly am.

15 Q Can you explain to the jury, to a reason-
16 able degree of scientific certainty, why there are no flies
17 eggs in -- in the open wound in Ms. Madaris' face?

18 A Because, in my opinion, I think it was too
19 cool to allow the flies the opportunity to be attracted and
20 give mother fly the opportunity to check things out, is this
21 where I want to put my kids for the next generation. Mother

direct - Neal Haskell, Ph.D.

1 blowfly has a responsibility, sole responsibility of carrying
2 on the genetic material for the next generation, so mother
3 fly has to get out and check things out and if the temper-
4 ature is -- even the temperatures the day before, temper-
5 atures in the low to mid sixties, that is not very conducive
6 for mother fly getting to it very quickly. As I said, if we
7 have hot temperatures, eighties and nineties, for instance,
8 mother flies will be on there, they'll be checking it out and
9 they'll be laying eggs within the first forty-five minutes to
10 hour, hour and-a-half, two hours.

11 Q How do bugs, like flies, know that there's
12 a decomposing body?

13 A Most of the insects that come into
14 decomposing bodies are attracted by odors and some of the
15 odors can occur immediately after death and do, because the
16 blowflies, when it's warm enough again, the blowflies will be
17 there within seconds to minutes and they'll be -- they'll be
18 bodies you and I can't even smell yet that these blowflies
19 can be attracted in from over a mile, a mile and-a-half away.
20 And so, it's chemical cues, odors are being emitted, the
21 blowflies have very, very keen chemical sensors on their --

direct - Neal Haskell, Ph.D.

1 their appendages and so, they will home in on the odors, get
2 there, check it out, make sure that it's for real, make sure
3 that the source is available and then, once mother fly
4 decides it's time to start laying eggs and it's adequate food
5 source, she'll start laying eggs. And then as she lays eggs,
6 then other -- chemicals are given off from her egg laying,
7 other flies -- other flies of her kind, other blowflies are
8 attracted in and we get what is known as oviposition or egg
9 laying frenzy. That's when there are literally tens, if not
10 hundreds of flies, in and about and they're all laying eggs.

11 Q Now, in this case, there is decomposition
12 to the face, is that right?

13 A Yes.

14 Q And your testimony is that that's consist-
15 ent with the body being exposed to the elements for at least
16 eighteen hours?

17 A Yes.

18 Q Based on your training and experience,
19 Doctor, was there sufficient decomposition, based on the
20 photographs that you saw and the material that you reviewed,
21 in Ms. Madaris' face that would have attracted blowflies?

direct - Neal Haskell, Ph.D.

1 A Yes. The decomposition was adequate.
2 What was not adequate were the temperatures.

3 Q Now, there was testimony that the jury
4 heard about bugs being observed on the victim's face, as
5 well?

6 A Yes.

7 Q There is also testimony from the medical
8 examiner that, when he looked at the body or examined the
9 body, there was no evidence of insect activity, including
10 bugs or beetles or flies. Can you explain that seeming
11 contradiction?

12 A To me, it's no contradiction at all. What
13 we have, with regards to the blowflies and not being -- not
14 having eggs present makes certain since that, again, it was
15 too cool for the blowflies to be in and doing this, what's
16 called oviposition or egg laying frenzy at the temperatures
17 we had and given the situation where we had the body recovery
18 taking place. With regards to these -- the many bugs that
19 Mr. Carey had observed upon finding the remains, that is
20 easily answered by the fact that, early on, early on in
21 decomposition and when we have cool temperatures, beetles,

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1 rather than flies will come into the body and can be in great
2 numbers early on. The thing about the beetles are that they
3 can be easily disturbed. They scurry off. You've got to be
4 quick. If you're catching beetles, you got to be quick
5 because they're fast crawlers and they scurry off into the
6 grass and the soil and you can lose them very, very quickly.
7 And so, you know, I'm not surprised at all that there was
8 observations of bugs, the beetles, and no fly eggs, because
9 the flies hadn't gotten there -- gotten there in quantities
10 yet to start laying the eggs.

11 Q Okay. I think what you're talking about
12 is human activity?

13 A Yes.

14 Q What is the impact of human activity on
15 beetles or bugs that are observed on a corpse like this?

16 MS. POLINSKE: Judge, I'm going to
17 object. There was absolutely no testimony before
18 this Court that beetles were present on this body.
19 The testimony was, by way of defense exhibit D-3,
20 that there were two flies found on Ms. Madaris' body
21 at the crime scene and then, the observations of Mr.

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1 Carey concerning what he saw when he first got to
2 the body. There is no evidence before this Court of
3 beetles, so this is not relevant.

4 THE COURT: I'm not aware of any
5 testimony regarding specific species of beetles. I
6 don't think that --

7 MR. FLOOD: I'll --

8 THE COURT: But you can ask the
9 question about the impact of human activity to
10 insects.

11 Q What is the -- now, assume -- I'm going to
12 ask you a hypothetical, Doctor. Assume that the first person
13 who comes to the crime scene sees the bugs in -- in the
14 injured area of Ms. Madaris' face, but there's no evidence,
15 at that time, that there are flies flying around. Are you
16 with me so far?

17 A Sure.

18 Q What would be the impact, after that
19 point, of human activity on those bugs that were observed on
20 the victim's face?

21 A The bugs would be disturbed and they would

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1 scurry off into the soil and grass and leaf litter and cover.

2 Q So, it's not surprising to you that they
3 would not be recovered or they would not be present a day or
4 two later during the autopsy?

5 A Absolutely not.

6 Q Is it your testimony here today that --
7 well, how about human activity on flies? Are flies as sensi-
8 tive to human activity as other types of bugs?

9 A In my experience, not the -- flies are
10 pretty persistent, particularly when you get a lot of the
11 decomposition odors cranking on at the higher temperatures.
12 Again, at temperatures of what we have here, decomposition
13 odors would be somewhat suppressed to a degree and the flies
14 can be a little timid, too, but, you know, they'll be around
15 and that's -- I actually found one in one of the scene photo-
16 graphs and I wasn't surprised to see that. That would be
17 what I would expect.

18 Q Now, you're testifying right now as a
19 scientist, based on your research and your training and
20 experience, is that true?

21 A Absolutely.

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1 Q But that's sort of commonsense, too?

2 Everyone has had flies in a garbage can that come back after
3 being disturbed, is that right?

4 A That's correct.

5 Q Are other bugs more sensitive than flies
6 in that regard?

7 A Well, the beetles -- beetles are -- again,
8 would be the most logical critter to be -- have been observed
9 as a bug and they are definitely -- and the ground crawlers,
10 specifically, are fast, but they can't -- they can fly, but
11 in escape mode, they're running away. And they're fast, fast
12 runners, fast ground crawlers. When they -- they go scooting
13 very, very quickly and they go for cover.

14 Q And it's fair to say that when a bug is
15 closer to the ground and is a ground crawler, its access to
16 escape is more readily available than a fly?

17 A Yes.

18 Q Is that part of the basis for your opinion
19 here today, Doctor?

20 A It certainly is.

21 MR. FLOOD: If I could have a moment,

1 Your Honor?

2 THE COURT: Certainly.

3 MR. FLOOD: Doctor Haskell, I don't
4 have any more questions for you at this time. The
5 Commonwealth might. Thank you.

6 THE COURT: Cross examine?

7
8 CROSS EXAMINATION

9 BY MS. POLINSKE:

10 Q Doctor Haskell, just a very, very few
11 questions that I'd like to ask you. You testified that --

12 A (interjecting) Very, very what? I'm
13 sorry.

14 Q Very few questions.

15 A Oh, all right.

16 Q You've testified that you reviewed
17 Quantico weather data?

18 A That's correct.

19 Q Okay. And so, you would agree that, on
20 April 8th of 2005, the high temperature for the day was about
21 sixty-three degrees?

cross - Neal Haskell, Ph.D.

1 A That's correct.

2 Q Okay. And you would agree that, on April
3 9th of 2005, the high temperature was sixty-four degrees?

4 A I would agree to that.

5 Q Okay. And you would agree that, on
6 Sunday, April 10th, at the time Lisa Madaris' body was found,
7 the temperature at that time was fourteen degrees Celsius,
8 which is about fifty-seven point two degrees, isn't that
9 correct?

10 A That's correct.

11 Q Okay. And your temperature -- or your
12 testimony today was that, at fifty to sixty degrees, low
13 sixties, is too cool for flies to lay eggs, is that correct?

14 A No, no. I didn't say -- no, that's not
15 quite correct. If -- if -- their oviposition behavior would
16 be retarded or restricted at that. It's not too cold to lay
17 eggs. It would be restricted and -- and have I seen bodies
18 that have been out for a couple of days at sixty degrees and
19 no oviposition taken place, yes, I have.

20 Q And you've also seen bodies that have been
21 out for a couple hours in those same temperatures that don't

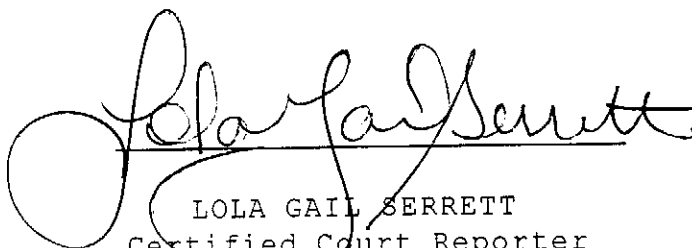
1 CERTIFICATE OF COURT REPORTER
2

3 I, LOLA GAIL SERRETT, hereby certify that I, first
4 being duly sworn, was the Court Reporter in the Circuit Court
5 of the County of Stafford, Virginia, on August 25, 2006, at
6 the time of the hearing herein.

7 I further certify that the foregoing TRANSCRIPT is a
8 true and accurate record of the hearing herein.

9 Given under my hand this 12th day of December, 2006.

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LOLA GAIL SERRETT
Certified Court Reporter
Certification 0525309

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