# Finding Aid to The HistoryMakers ® Video Oral History with Tyrone Hayes

#### Overview of the Collection

**Repository:** The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616

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**Creator:** Hayes, Tyrone

**Title:** The HistoryMakers® Video Oral History Interview with Tyrone Hayes,

**Dates:** March 7, 2011

Bulk Dates: 2011

**Physical Description:** 7 uncompressed MOV digital video files (3:06:51).

**Abstract:** Biology professor and biologist Tyrone Hayes (1967 - ) is a leading researcher in

amphibian endocrinology. Professor at the University of California, Berkeley, Hayes's work has shown the herbicidal chemical Atrazine to act as an endocrine disruptor in the sexual development of frogs. Hayes was interviewed by The HistoryMakers® on March 7, 2011, in Parkeley, California, This callection is comprised of the critical video

7, 2011, in Berkeley, California. This collection is comprised of the original video

footage of the interview.

**Identification:** A2011 001

**Language:** The interview and records are in English.

## Biographical Note by The HistoryMakers®

Biologist and biology professor Tyrone B. Hayes was born on July 29, 1967 in Columbia, South Carolina, to Romeo and Susie Hayes. In the forests near Columbia, Hayes first became interested in the way that frogs morphed from tadpoles to their adult form. He graduated from Dreher High School in 1985 and then earned his B.A. and M.A. degrees in biology in 1989 from Harvard University. His dissertation on the genetic and environmental mechanisms determining the gender of the wood frog would be indicative of the research he would pursue later. After graduating from Harvard University, Hayes continued his studies at the University of California, Berkeley, where he received his Ph.D. degree in integrative biology in 1993 for his study of the role of hormones in mediating developmental responses to environmental changes in amphibians.

Hayes worked as a National Science Foundation postdoctoral fellow at the University of California, Berkeley before he became an assistant professor at the University in 1994. He was appointed to a full professorship position in 2003. Hayes' scientific research continues to focus on the potential of genetic adaptation and the role of hormones in the development of the amphibian. His investigations have shown that chemical agents, such as a commonly used herbicide, have the ability to negatively impact the sexual development of the amphibian, even when such toxins are present in low concentrations. Hayes has taken an interest in the hormonal regulation and development of aggressive behavior. Hayes has also been active with the National Science Foundation Review Panel since 1995, and he has served on several other advisory boards as well.

Hayes has won several awards for his teaching and his research, including the Distinguished Teaching Award from University of California, Berkeley in 2002 and the President's Citation Award from the American Institute of Biological Science in 2004. He was also awarded the National Geographic Emerging Explorer Award and the Jennifer Altman Award in 2005.

Hayes lives in California with his wife, Kathy Kim, and their two children, Tyler and Kassina.

Tyrone Hayes was interviewed by *The HistoryMakers* on March 7, 2011.

## **Scope and Content**

This life oral history interview with Tyrone Hayes was conducted by Larry Crowe on March 7, 2011, in Berkeley, California, and was recorded on 7 uncompressed MOV digital video files. Biology professor and biologist Tyrone Hayes (1967 - ) is a leading researcher in amphibian endocrinology. Professor at the University of California, Berkeley, Hayes's work has shown the herbicidal chemical Atrazine to act as an endocrine disruptor in the sexual development of frogs.

## Restrictions

## **Restrictions on Access**

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

#### **Restrictions on Use**

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

## **Related Material**

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

## **Controlled Access Terms**

This interview collection is indexed under the following controlled access subject terms.

## Persons:

Hayes, Tyrone

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### Subjects:

African Americans--Interviews Hayes, Tyrone--Interviews African American scientists--Interviews

## **Organizations:**

HistoryMakers® (Video oral history collection)

The HistoryMakers® African American Video Oral History Collection

University of California, Berkeley

## **Occupations:**

**Biologist** 

## **HistoryMakers® Category:**

ScienceMakers

#### Administrative Information

## **Custodial History**

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

#### **Preferred Citation**

The HistoryMakers® Video Oral History Interview with Tyrone Hayes, March 7, 2011. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

## **Processing Information**

This interview collection was processed and encoded on 5/30/2023 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

# Other Finding Aid

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

# **Detailed Description of the Collection**

#### **Series I: Original Interview Footage**

Video Oral History Interview with Tyrone Hayes, Section A2011\_001\_001\_001, TRT: 0:30:46?

Tyrone Hayes slates the interview and shares his favorites. He then discusses the family background of his mother, Susie Louise Richardson, who was born on October 29, 1947. Hayes's maternal grandmother, Agnes Elizabeth Bailey, was raised by her mother, Louise Bailey. Hayes compares the large "protected" family environment of his mother to that of his father, Romeo Hayes, who was much independent growing up in segregated Columbia, South Carolina, near the South Carolina University campus. He was raised by his aunt, from whom he took the surname, "Hayes." Hayes's parents met while at a party in Columbia, and his father followed his mother to Atlanta University, where she was studying at Morris Brown University. The couple returned to Columbia, where Hayes recalls his neighborhood and the swamps around his grandmother's home.

African American families--South Carolina.

African Americans--Segregation--South Carolina.

African American extended families.

African American mothers--South Carolina.

Video Oral History Interview with Tyrone Hayes, Section A2011 001 001 002, TRT: 0:29:36?

Tyrone Hayes remembers not enjoying elementary school because he did not feel challenged. He was often disciplined for being hyperactive in class. Hayes recalls his initial introduction to science through television programs such as National Geographic and Wild Kingdom. As a cub scout, Hayes monitored a family of mourning doves and he would go to the library every weekend. Hayes discusses his influences growing up, particularly the Riverbanks Zoo in Columbia, South Carolina. Hayes closes this section of the interview discussing his acceptance to an artistically gifted and talented program at Hand Middle School. Being an integrated school, Hayes discusses his first interactions with white peers.

African American children--Education--South Carolina.

School integration--South Carolina.

National geographic.

Zoos--South Carolina--Columbia.

Nature television programs.

Video Oral History Interview with Tyrone Hayes, Section A2011 001 001 003, TRT: 0:30:17?

Tyrone Hayes describes his high school courses and teachers, including some of the scientific experiments he conducted during his summer vacations. Hayes reflects upon his environmental consciousness as a youth and touches upon the growing concerns over the declining amphibian population, which comes to international attention in the late 1980s. After discussing some of the books and movies he enjoyed growing up, Hayes talks about his college years, explaining how he chose to apply only to Harvard University. He then describes upon the influence of his future wife, Katherine Kim, and lab director, Dr. Bruce Waldman, in keeping him at the university during a difficult transition to college life. He recounts some of the African American students and faculty members that influenced his time at Harvard University. Using his own experiences as examples, Hayes ends this section of the interview offering advice to students for making the transition to college.

African American men--Education (Higher)--Massachusetts--Cambridge. Harvard University.

United States--Race relations.

Video Oral History Interview with Tyrone Hayes, Section A2011 001 001 004, TRT: 0:31:54?

Tyrone Hayes reflects on the importance of having the opportunity to work in Bruce Waldman's laboratory during his college years as well as his decision to pursue his graduate studies at the University of California, Berkeley. He describes the declining amphibian population and the role of frogs as environmental indicators, the role that hormones play in amphibian (and organismal) development, and the definition of endocrine disruptors. Hayes also describes the endocrinology groups at the University of California, Berkeley, and the black presence on the campus. After describing his research studies in Kenya and his post-graduate career plans, Hayes begins a lengthy discussion on his involvement with Atrazine, Ecorisk, and Novartis (later called Syngenta).

University of California, Berkeley.

African American scientists--Ecology.

Amphibians.

Waldman, Bruce, 1953-.

Herbicides--Research.

Atrazine.

Video Oral History Interview with Tyrone Hayes, Section A2011\_001\_001\_005, TRT: 0:26:02?

Tyrone Hayes clarifies his position on Atrazine and the use of herbicides. He then describes the different types of experiments conducted to examine the effects of the Atrazine, including epidemiological studies, studies performed in rats and studies conducted in human cell lines. Studies find that Atrazine turns on the enzyme aromatase, which transforms estrogen to testosterone, causing the change in sex characteristics of frogs. Hayes shares anecdotes of how he has confronted being harassed by individuals from Novartis and Syngenta. He then touches upon how his strategy to diversify funding has benefited his laboratory. Hayes closes this section of the interview by discussing the importance of his patent, the Hyperolis Argus Endocrine Screen (HAES).

African Americans--Science--Study and teaching (Higher).

Herbicides--Research.

Atrazine.

Intimidation.

Harassment.

Video Oral History Interview with Tyrone Hayes, Section A2011 001 001 006, TRT: 0:31:26?

Tyrone Hayes discusses the types of experiments that his research group employs to study the endocrinology of frogs, including controlled experiments in the laboratory and observational studies in the field. He emphasizes the importance of the objectivity of scientific research and notes the growing awareness of the risks of chemicals like Atrazine. Hayes then describes his philosophy of combining his personal and professional lives and shares his concerns for the African American community, particularly in education. He believes he can make a difference by educating non-scientists to take an interest in careers in science. In response to a question of new research topics, Hayes discusses his laboratory's work in studying how certain chemicals affect neurological development. This interview session closes with a discussion on the awards that Hayes has received.

Herbicides--Research--African American scientists.

African American endocrinologists.

Neurology.

Bioethics.

Video Oral History Interview with Tyrone Hayes, Section A2011\_001\_001\_007, TRT: 0:06:50?

Tyrone Hayes describes the activities he enjoys outside of work, including exercising and gardening. He then reflects on how he would not do anything differently if given the chance to live his life over again and that his personal legacy is his children. He closes the interview describing how he wants to be remembered.

African Americans--Conduct of life.