

“Celebrating the Legacy of David Starr Jordan,
Eminent Educator, Philosopher, and Scientist”
David Starr Jordan Prize Ceremony and Lecture
Remarks of Michael A. McRobbie
President, Indiana University
IU Bloomington
Jordan Hall A100
Monday, March 2, 2015
4:00 p.m.

1. INTRODUCTION AND ACKNOWLEDGEMENTS

Good afternoon.

I am delighted to welcome all of you to the seventh award ceremony for the David Starr Jordan Prize for Innovative Contributions to the Study of Evolution, Ecology, Population or Organismal Biology.

I want to extend a special welcome to the senior leaders of Indiana University who have joined us today as we present the Jordan Prize for the first time in six years.

IU is proud to claim two Jordan Prize recipients: The first is Distinguished Professor Loren Rieseberg, who shares his time between the University of British Columbia and Indiana University's Department of Biology. The second is Distinguished Professor of Biology Jeff Palmer, who I believe is here today, and who played a major role in the process of re-establishing the tradition of awarding the Jordan Prize.

I also want to commend the members of the selection committee, who also have helped to re-establish this wonderful tradition, including the faculty members from Cornell, Stanford, and Indiana University Distinguished Professors Michael Lynch, Ellen Ketterson, and Keith Clay.

The awarding of the Jordan Prize not only recognizes the important contributions of a young research scientist, it also highlights important eras in the history of Cornell, Indiana, and Stanford Universities, and I am truly delighted that the tradition of awarding the prize has resumed.

2. DAVID STARR JORDAN: “ONE OF THE MOST VERSATILE MEN AMERICA HAS PRODUCED”

Today, we gather to celebrate the vision and leadership of the seventh president of Indiana University and the first president of Stanford—the man for whom this building, Jordan Avenue, and the Jordan River were named: David Starr Jordan.

Jordan was, in the words of biographer Edward McNall Burns, “one of the most versatile men America has produced, winning distinction not only as an educator, philosopher, and scientist, but also as an explorer, a crusader for peace and democracy, and an advisor to Presidents and foreign statesmen. ...It would seem no exaggeration to say,” Burns continued, “that (Jordan) belonged to the great tradition of the 18th century, personified by such giants as Franklin and Jefferson, who took the whole world of knowledge as their province.”¹

3. JORDAN’S EDUCATION AND EARLY INFLUENCES

Born and raised on a farm near the village of Gainesville, New York, Jordan entered Cornell University in 1869, and worked his way through school with a series of jobs that

¹ Edward McNall Burns, *David Starr Jordan: Prophet of Freedom*, (Stanford University Press, 1953), 1.

included digging potatoes, husking corn, and sweeping the floors of the science building.²

In his sophomore year, he was appointed as an instructor in Botany. When he graduated in 1872, he had completed so much additional work that he was awarded a Master of Science degree rather than the Bachelor of Science degree awarded to the other students of his class.³

Shortly after his graduation from Cornell, Jordan participated in the Anderson Summer School of Natural History on Penikese Island, off the coast of Massachusetts, under the direction of Louis Agassiz, the Swiss-born scientist who revolutionized the teaching of biology and geology in America. Agassiz had a major influence on Jordan's development both as a scientist and an educator. It was Agassiz who inspired Jordan's passion for ichthyology, and perhaps more importantly, Agassiz helped Jordan gain a full appreciation for the value of an analytical approach to science.

Another major influence on Jordan's early development was Andrew Dickson White, the co-founder and first president of Cornell. White subscribed to a number of principles that Jordan would later implement here at Indiana University and at Stanford: the separation of education from sectarian influences; an equal place for the natural sciences and technical arts alongside the humanities; equal rank for modern and classical languages and literature; the substitution of free choice of courses for the old 'cast iron' curriculum; and the treatment of university students as adults and responsible members of a community of scholars.⁴

² Frank Huntress, "David Starr Jordan- Teacher, Naturalist, Prophet of Freedom," *The Stanford Daily*, Thursday, November 10, 1955, 4.

³ Rollin C. Richmond, Presentation of the First David Starr Jordan Prize to Roy M. Anderson, April 2, 1987, Bloomington, IN.

⁴ Frank Young, "The Giants of Zoology: Jordan, Eigenman and Payne," *Indiana Academy of Science*, volume 95, 1986, 372.

4. JORDAN AT INDIANA UNIVERSITY

Jordan began his tenure at Indiana University as a professor of natural history in 1879.

He was, of course, the most eminent and influential American ichthyologist in the 19th and early 20th centuries. Almost immediately after joining the Indiana University faculty, he took leave to conduct a survey of Pacific Coast fisheries for the U.S. Commission of Fish and Fisheries. Expeditions of this nature were typical of Jordan's tenure at IU.

In 1922, when Jordan published his autobiography, there were between 12,000 and 13,000 known species of fish. Jordan and his students had discovered more than 2,500 of those species. They had also at that point named nearly 1,100 of the 7,000 genera named since scientific nomenclature began in 1758.⁵

Jordan was also, without question, one of the strongest proponents of evolution in the late 19th and early 20th centuries. He claimed to have taught the world's first college course on evolution here at Indiana University, and he wrote a number of books and articles on the topic, including *Darwinism* (published in 1888) and *Footnotes to Evolution* (published in 1898). He chaired the Tennessee Evolution Case Defense Fund Committee for the ACLU in 1925 and raised funds for the defense in the infamous John Scopes trial. After the trial, Jordan also chaired a committee to raise funds for Scopes' graduate training at the University of Chicago.

Jordan also established the first faculty-initiated study abroad programs at Indiana University. For almost a decade, he and a faculty colleague led a series of academically-focused trips—known as summer “tramps”—to Europe with 20 to 30 students and faculty to study natural history, language, and culture in Switzerland, Germany, Italy, France and England.⁶

⁵ David Starr Jordan, *Days of a Man*, volume 1, 288.

⁶ Indiana University International Fact Book, 2012-13, 9.

When he became Indiana University's seventh president in 1884, he was then the nation's youngest university president at age thirty-four.

At the time he took office as president, the mission of public universities was shifting away from a classical and toward a professional education. Jordan oversaw the university's move to the new campus at Dunn's Woods in 1885, he secured state funds to build out the campus, and instituted the revolutionary concept of curricular majors and electives, based on his belief—inspired by Cornell's Andrew Dickson White—that students should have the freedom to choose what they would study. The “major subject” system was conceived by a committee comprised of Jordan; professor of Germanic languages, Karl von Jagemann; and William Lowe Bryan, whose career as a faculty member Jordan cultivated, and who would, of course, become Indiana University's 10th and longest-serving president.⁷

The purpose of the new system was, in Jordan's words, “to enable every one to make the most of his (or her) four college years by seeking the best teachers and the subject best fitted to his (or her) tastes and capacity.”⁸

As Jordan noted in his autobiography, enrollment soon doubled, “and the professors themselves felt a stimulus due to contact with young people drawn—not driven—to their work.”⁹

Jordan also traveled on horseback to every county in Indiana, spreading the message that higher education was essential to the state's continued progress and to the prosperity of her citizens.

The Jordan era, of course, was also a period during which a new emphasis on research emerged in higher education, and he remained fully committed to the central importance of experimentation and research.

⁷ David Starr Jordan, *The Days of a Man*, volume 1, (World Book Company, 1922), 293

⁸.Ibid.

⁹ Ibid., 294.

He famously wrote that “the highest function of the real university is that of instruction by investigation,”¹⁰ and he embodied those words throughout his entire career. Even while serving as president of Indiana University, Jordan continued to contribute original works to the field of ichthyology.

And having reorganized IU’s departmental structure and revamped the curriculum to emphasize scientific subjects,¹¹ Jordan actually led the Department of Zoology while serving as president.¹² Under Jordan’s leadership, and that of his successors—Carl Eigenmann, a prominent ichthyologist and a former student of Jordan’s, and Fernandus Payne, who introduced genetics to IU and attracted researchers including Nobel laureates Herman Muller and Salvatore Luria—IU’s Department of Zoology grew to international prominence. And of course, the Department of Zoology eventually joined with the departments of botany and bacteriology to form the Division of Biological Sciences, the precursor to today’s outstanding Department of Biology.

As Rollin Richmond, a former IU faculty member who recently retired as president of Humboldt State University noted at the first Jordan Prize ceremony: “Both at Indiana and at Stanford, Jordan helped to convert biological research from the emphasis on natural history to one on experimentalism.”¹³ Richmond called this shift in tradition one of the most important events in the history of biology, and noted that Jordan’s contributions in this area alone justified the creation of the prize we award today in his name.¹⁴

¹⁰ David Starr Jordan, as quoted by Samuel Bannister Harding, Indiana University, 1820-1904, (Bloomington: Indiana University, 1904), p. 21.

¹¹ James Capshew, “the Legacy of the Laboratory (1888-1988), A History of the Department of Psychology at Indiana University,” in “Psychology at Indiana University: A Centennial Review and Compendium,” (Indiana University Department of Psychology, 1988), 8.

¹² Frank Young, “The Giants of Zoology: Jordan, Eigenmann, and Payne,” *Indiana Academy of Science*, volume 95, 1986, 371.

¹³ *Ibid.*

¹⁴ *Ibid.*

Jordan's efforts truly marked the beginning of Indiana University's rise to prominence as a research institution.

5. JORDAN AT STANFORD

Jordan resigned in 1891 to become president of Stanford University, a post he held until 1913.

At Stanford, he implemented the same curricular major system that had been successful at Indiana University. He also continued to foster the advancement of the biological sciences in a number of ways, including through the establishment of the Hopkins Marine Station, now the second-oldest marine laboratory in the United States, second only to the Marine Biological Laboratory in Woods Hole, Massachusetts—the forerunner of which was Louis Agassiz's summer school of natural history on Penikese Island. Beginning in the 1930s, Cornelis van Niel taught a groundbreaking course in microbiology at the Hopkins Marine Station that influenced the careers of a group of scientists who helped to establish the field of molecular biology, including a number of Nobel Prize winners.

And, of course, today Stanford University is widely recognized as a leader in the natural sciences, the applied sciences, and beyond. Stanford has produced 59 Nobel laureates and, famously, has helped to incubate numerous major tech companies, including Google, Sun Microsystems, and Hewlett Packard. Much of the university's success can be traced to the early influence of David Starr Jordan, and the critical role he played in establishing the institution.

6. CONCLUSION

In his 1903 volume, *The Voice of the Scholar*, Jordan wrote that “A true university is not a collection of colleges....It is the association of scholars. It is the institution from which in every direction blazes the light of original research.”¹⁵

In resuming the tradition of awarding the David Starr Jordan Prize, we honor Jordan’s legacy as we recognize an outstanding young scientist who continues to keep the light of original research ablaze.

And now, to tell us more about the history of the Jordan Prize, would you please join me in welcoming the Executive Dean of Indiana University’s College of Arts and Sciences, Larry Singell.

7. PRESENTATION OF JORDAN PRIZE MEDAL TO DANIEL BOLNICK

[Following Dean Singell’s remarks and Professor Fuqua’s presentation of Dr. Daniel Bolnick, President McRobbie returned to the podium to present the Jordan Prize medal.]

Thank you, Professor Fuqua.

Daniel I. Bolnick, in recognition of your groundbreaking research at the intersection of ecology, evolution, behavior, and immunology, it gives me great pleasure—on behalf of Indiana University and our colleagues at Cornell and Stanford universities—to present you with the David Starr Jordan Prize.

Congratulations.

¹⁵ David Starr Jordan, *Voice of the Scholar with Other Addresses on the Problems of Higher Education*, (Paul Elder: San Francisco, 1903), 32.