

Ernest Everett Just

Fact File

Date of Birth: 14th August 1883

Place of Birth: Charleston, South Carolina, USA

Date of Death: 27th October 1941

Early Life

Ernest Everett Just's father died when he was four. During his second year of high school, he returned home to find that his mother had passed away. Despite the circumstances, he finished high school a year early and graduated in 1903 with the highest grades in his class. Just went on to study Biology at Dartmouth College and won many special honours while he was there. The faculty did not choose him to deliver a speech to graduating students because "It would be a faux pas to allow the only Black in the graduating class to address the crowd of parents, alumni, and benefactors." Just graduated from college *magna cum laude*, which means 'with highest praise'. Despite this, as a Black graduate he found it almost impossible to become a faculty member at prestigious colleges or universities. Just took up a teaching position at Howard University, a historically Black university. In 1912, he became the head of the Department of Zoology there.



Key Achievements

Won special honours in zoology.

Received the NAACP's Spingarn Medal recognising his scientific achievements and his 'foremost service to his race'.

Published over 70 scientific research papers and two books.

Founded Omega Psi Phi, the first Black fraternity on the campus of Howard University.

Contribution to Science

Just was one of the first African Americans to receive worldwide recognition as a scientist. His research focused on the fertilisation of the eggs of marine invertebrates. His skill in handling eggs and embryos was in great demand. He completed a PhD with a thesis on the mechanics of fertilisation, publishing several research articles during this time.

As Just was not able to work at the best universities in the United States due to racial discrimination, he travelled to Europe to collaborate with scientists at prestigious universities there. Just published over 70 papers in cytology (the study of cells), fertilisation and early embryonic development. He wrote two books: '*Basic Methods for Experiments on Eggs of Marine Animals*' and '*The Biology of the Cell Surface*'.

Just recognised the important role of the cell surface in the development of organisms and advocated for the study of whole cells, instead of breaking them apart to study. His experiments gave insights into the internal structure of the cell and anticipated being able to image live cells. He argued that the ectoplasm (the outer part of the cytoplasm) was an important part of the cell, though his experimental work in this area was largely ignored.

