

Research will help ID bodies left behind by Chilean earthquake, Pinochet regime

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Dr. Ann Ross (standing) has done an analysis of Chilean skeletons to develop population-specific identification criteria that will help identify human remains of those killed during the recent earthquake in Chile, as well as the bodies of the "disappeared" who were killed during the Pinochet administration. Credit: David Hunt, North Carolina State University

New research from North Carolina State University will help medical examiners and others identify human remains of those killed during the recent earthquake in Chile, as well as the bodies of the "disappeared" who were killed during the Pinochet administration.

"We have developed population-specific identification criteria for the Chilean population, which will help us determine the stature and biological sex of [skeletal remains](#)," says Dr. Ann Ross, an associate professor of sociology and anthropology at NC State and lead author of a paper describing the research.

"My vision for this work is to help identify the remains of victims of political violence that occurred under the Pinochet regime," says Ross,

whose mother is Chilean. "This will also help in contemporary body identification efforts in Chile. For example, in the event of a mass fatality - such as the February earthquake in Chile - this will help authorities identify recovered remains."

For the past decade, forensic researchers - such as Ross - have been developing population-specific identification criteria that account for variations in height, build and other characteristics that can be critical when attempting to identify human remains. "This is important," Ross explains, "because populations vary. Identifying characteristics such as height and sex can be significantly different from population to population."

For this study, the researchers evaluated remains from a 20th century Chilean cemetery in order to accurately characterize Chilean skeletal features. They were then able to develop stature criteria that can help researchers arrive at an accurate height for an individual based on an analysis of his or her long bones, including the femur and tibia.

The researchers were able to develop criteria to determine a body's biological sex based on measurements of the articulation of the upper arm bone (the humerus) and the femur.

More information: The paper, "New identification criteria for the Chilean population: Estimation of sex and stature," was co-authored by Maria Jose Manneschi of the Universidad de Chile. The paper will be published in a forthcoming issue of *Forensic Science International*.

Provided by North Carolina State University

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