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### **A132 A Multiple Fatality Response to Nine Indigenous Deaths in a Burned House in Pikangikum, Ontario: Forensic Anthropology**

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After attending this presentation, attendees will better understand the contributions of forensic anthropology in a multiple fatality response to a house fire in a remote Ojibwe First Nation community located on the Pikangikum 14 Reserve in northwestern Ontario, Canada. This presentation serves as a demonstration of the work of the Ontario Forensic Pathology Service (OFPS), the hosts of the International Association of Forensic Sciences 2017 triennial meeting.

This presentation will impact the forensic science community by illustrating how integrating forensic anthropologists into daily practice, as well as into multiple fatality responses, serves to achieve successful and expedient death investigations of significantly burned human remains by maximizing recovery, minimizing commingling, and preserving context. This presentation will also demonstrate how Computed Tomography (CT) scans can be useful for osteological age-at-death estimations.

In the OFPS, forensic anthropology is part of the daily business of death investigation. Since the 1980s, forensic anthropologists have been utilized in ever-expanding roles in death investigation. There is one full-time Forensic Anthropologist (FA) at the OFPS, and five fee-for-service FAs who can be called upon as necessary. In daily practice, OFPS FAs are involved in most death investigations in which bones are found and the species is unknown and/or human remains are visually unrecognizable and/or fragmentary, partial, or burned. In addition, the full-time FA manages long-term unidentified remains and is responsible for the OFPS Multiple Fatality Plan. Forensic anthropology is always utilized at scenes of found remains that are not fresh or intact. Forensic anthropology is an expected and integrated discipline at the scene of such found remains where the anthropologist most often leads the recovery of human remains. Forensic anthropology is also engaged in postmortem examinations, ancillary testing (such as tool mark analysis), and human identification. Forensic anthropology is considered an essential service in the Ontario government.

During the evening of March 29, 2016, a single-story home on the Pikangikum 14 Reserve burned un-suppressed into the morning, taking the lives of an extended family, including six adults and three children. Forensic anthropologists played principle roles in the multiple fatality response throughout the duration of the investigation, from March 30 to April 4. Initially, at the laboratory, the full-time FA coordinated the effort and deployed a consultant FA to the scene to integrate into the field team and be responsible for the search, exposure, documentation, and recovery of human remains and associated artifacts, as well as antemortem records collection and transport.

Specifically relating to the laboratory setting during April 3-4, the FAs integrated with every discipline while contributing to the postmortem examinations and identifications. Prior to any laboratory work, the FA interpreted preliminary scene findings and photos and created maps in order to lead a briefing to nearly 40 at-the-ready staff (no other field team members attended the postmortems). During the postmortems, which were held three at a time by three forensic teams, contributions by the FAs included: the interpretation of postmortem CT scans; removal of debris; anatomical positioning and skeletal inventory; dental reconstructions; burn-pattern interpretation; traumatic



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injury interpretation; estimation of biological profile (age at death and sex); analysis of unique skeletal features for identification purposes via antemortem radiographs; 3D virtual reconstruction (for skeletal inventory and juvenile age-at-death estimation); and the resolution of commingling.

Both FAs sat on the Identification Committee and collated summary findings from the antemortem and postmortem records. The full-time anthropologist led the reconciliation meeting through the comparison of antemortem/postmortem case profiles for final identification. The consultant anthropologist wrote the final forensic anthropology report, which was comprehensive, from scene recoveries to identifications.

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### **Multiple Fatality/DVI, Forensic Anthropology, Recovery/Postmortem**