

Validating the Osteoid web tool for skeletal species identification

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Determining if remains are human or non-human is the first priority when evaluating an unknown bone; secondary is species identification. The Osteoid web tool was created for public use to aid in species identification. A few measurements, along with photo comparisons, guides the user towards an identification. The tool has been available for use since 2021 but has yet to be tested. The aim of this study is to test the effectiveness of the Osteoid web tool in species identification. The study consists of 56 unidentified faunal long bones recovered from various locations in Iowa. The bones were measured and visually evaluated using the Osteoid web tool. All elements were able to be identified when visual comparison was utilized. Based on measurements alone, Osteoid correctly classified 96%. Those with measurements outside of the posted range included a goose femur and a turkey tibiotarsus. The goose femur measurement is one millimeter outside of the range; this could be a measurement error, or a call to expand the dataset. The turkey tibiotarsus has larger measurements than specified by Osteoid. This could be a domestic turkey rather than wild, giving explanation to its exceptionally large size. Accuracy rate could be improved by adding the measurements of more individual bones to the current dataset, including both domestic and wild specimens for each species. Utilization of measurements in the program is limited to skeletally mature specimens. Overall, however, the program was quick and simple to use for preliminary identifications.