3D printed deer head and neck model

Applications

- 3D printed model for CWD education and training

Technology Overview

Researchers at Minnesota Center for Prion Research and Outreach (MNPRO™) have developed a 3D head and neck model of a white-tailed deer. Generated using high resolution CT scan images, this 3D model is an anatomically accurate representation of a white-tailed deer with a focus on the skeleton, salivary glands, medial retropharyngeal lymph nodes, and brainstem. This realistic deer head can be used to assist in training individuals to collect samples for chronic wasting disease (CWD) diagnostic testing. Utility exists for multiple national and state-level agencies as well as educational institutions. This head and neck model will serve as an option to compliment the use of fresh tissue, since the model

- is more accessible and reusable (does not require tissue disposal and clean up, does not decompose),
- provides easy to see structures, and
- facilitates better engagement with the audience during training.

This model is highly useful to help educate hunters, cervid farmers, students, and professionals who may need to sample lymph node tissues for CWD testing.

Versions

- Version 1: Medial retropharyngeal lymph nodes are accessible and removable.
- Version 2: Brainstem and medial retropharyngeal lymph nodes are accessible and removable.

Versions 1 and 2 of the 3D printed model are available at the [Minnesota Center for Prion Research and Outreach eStore](#).

Researchers

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Publications

Schwabenlander, M. D., Pendleton, A., Wolf, T. M., Larsen, P., & Larsen, R. (2021). A complex disease simplified: innovative tools help present chronic wasting disease education to diverse audiences. The Wildlife Professional, 15(5), 54-57. [5].

Technology ID
2021-009, 2022-091

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