

3D models related to the publication: Ontogenetic development of the otic region in the new model organism, *Leucoraja erinacea* (Chondrichthyes; Rajidae).

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Abstract

The present 3D Dataset contains the 3D models analyzed in the publication ‘Ontogenetic development of the otic region in the new model organism, *Leucoraja erinacea* (Chondrichthyes; Rajidae)’, <https://doi.org/10.1017/S1755691018000993>

Keywords: inner ear, Little Skate, semicircular canals, vestibular system

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Model IDs	Description
NHM2018.9.26.5	Stage 29 right skeletal labyrinth
NHM2018.9.25.4	Stage 31 right skeletal labyrinth
NHM2018.9.25.3	Stage 32 right skeletal labyrinth
NHM2018.9.25.3	Stage 32 right membranous system
NHM2018.9.25.2	Stage 34 right skeletal labyrinth
NHM2018.9.26.1	Adult right skeletal labyrinth

Table 1. List of 3D models of otic region of *Leucoraja erinacea*. All specimens belong to the Natural History Museum (NHM), London

BIBLIOGRAPHY

Pfaff Cathrin, Kriwet Jürgen, Martin Kyle and Johanson Zerina (2019). Ontogenetic development of the otic region in the new model organism, *Leucoraja erinacea* (Chondrichthyes; Rajidae). Earth and Environmental Science Transactions of the Royal Society of Edinburgh. <https://doi.org/10.1017/S1755691018000993>

INTRODUCTION

Prehatching to adult developmental stages of the ear region are investigated using micro-CT scanning in conjunction with staining procedures to improve visualization of soft tissues. The anatomy of the skeletal labyrinth (M3#369_2018.9.25.3) changes during ontogeny and differs substantially from the underlying membranous system (M3#372_2018.9.25.3). The size of the labyrinth increases isometrically from pre- to post-hatching phases, and then exponentially after the post-hatching stages (see Fig. 1).

METHODS

3D models of the skeletal labyrinth of all stages and the membranous system of stage 32 were reconstructed with Amira 6.0. based on manual segmentation of the tiff stacks. The 3D surface models are provided in .ply format, and can therefore be opened with a wide range of freeware (see Table 1).

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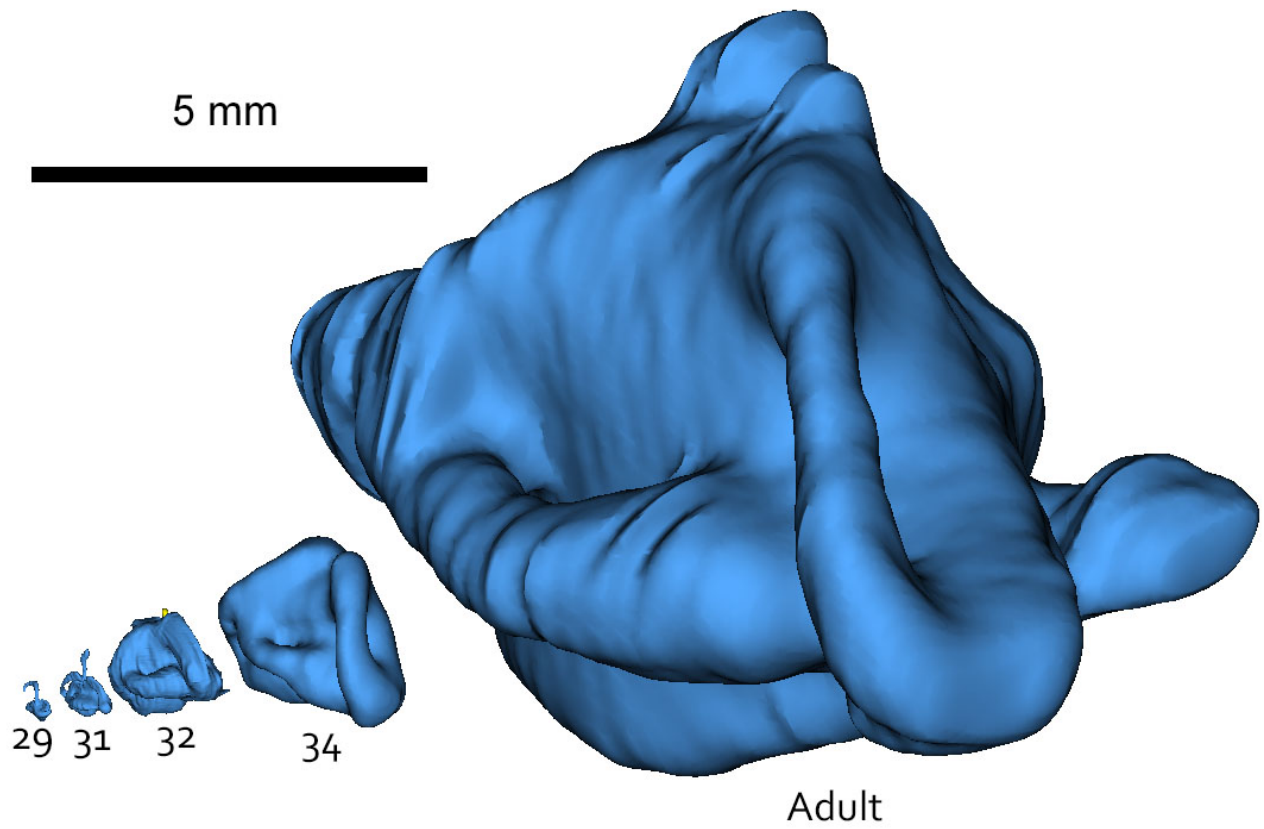


Figure 1. Right skeletal labyrinths of *Leucoraja erinacea* at stages 29, 31, 32, 34 and of an adult specimen.