microCT imaging of threespine stickleback

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Abstract

Introduction

- Embedded into [Alaska Stickleback Restoration Project](), [Genomics axis]() where Katie Peichel, Ben Sulser and Sheila Christen are affiliated.

Materials & Methods

Sample preparation

microtomographic imaging

- Sample holder generated with [OpenSCAD](#), visible at https://github.com/TomoGraphics/Hol3Drs/blob/master/STL/Stickleback.Multiple.stl

```
solid cube_corner
  facet normal 0.0 -1.0 0.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 1.0 0.0 0.0
      vertex 0.0 0.0 1.0
    endloop
  endfacet
  facet normal 0.0 0.0 -1.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 0.0 1.0 0.0
      vertex 1.0 0.0 0.0
    endloop
  endfacet
  facet normal -1.0 0.0 0.0
    outer loop
      vertex 0.0 0.0 0.0
      vertex 0.0 0.0 1.0
      vertex 0.0 1.0 0.0
    endloop
  endfacet
  facet normal 0.577 0.577 0.577
    outer loop
      vertex 1.0 0.0 0.0
      vertex 0.0 1.0 0.0
      vertex 0.0 0.0 1.0
    endloop
  endfacet
endsolid
```

Data analysis

- [Jupyter notebooks](#)

Results

Discussion

Conclusion

Author Contributions

Competing Interest

Author	Competing Interests	Last Reviewed
David Haberthür	None	2026-01-14
Ben Sulser		
Sheila Christen		
Katie Peichel		
Ruslan Hlushchuk		

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References

1. **ANSI/NISO Z39.104-2022, CRediT, Contributor Roles Taxonomy** *NISO* https://doi.org/gqx265
    DOI: 10.3789/ansi.niso.z39.104-2022

2. **Open collaborative writing with Manubot**
    Daniel S Himmelstein, Vincent Rubinetti, David R Slochower, Dongbo Hu, Venkat S Malladi,
    Casey S Greene, Anthony Gitter
    PLOS Computational Biology (2019-06-24) https://doi.org/c7np
    DOI: 10.1371/journal.pcbi.1007128 · PMID: 31233491 · PMCID: PMC6611653