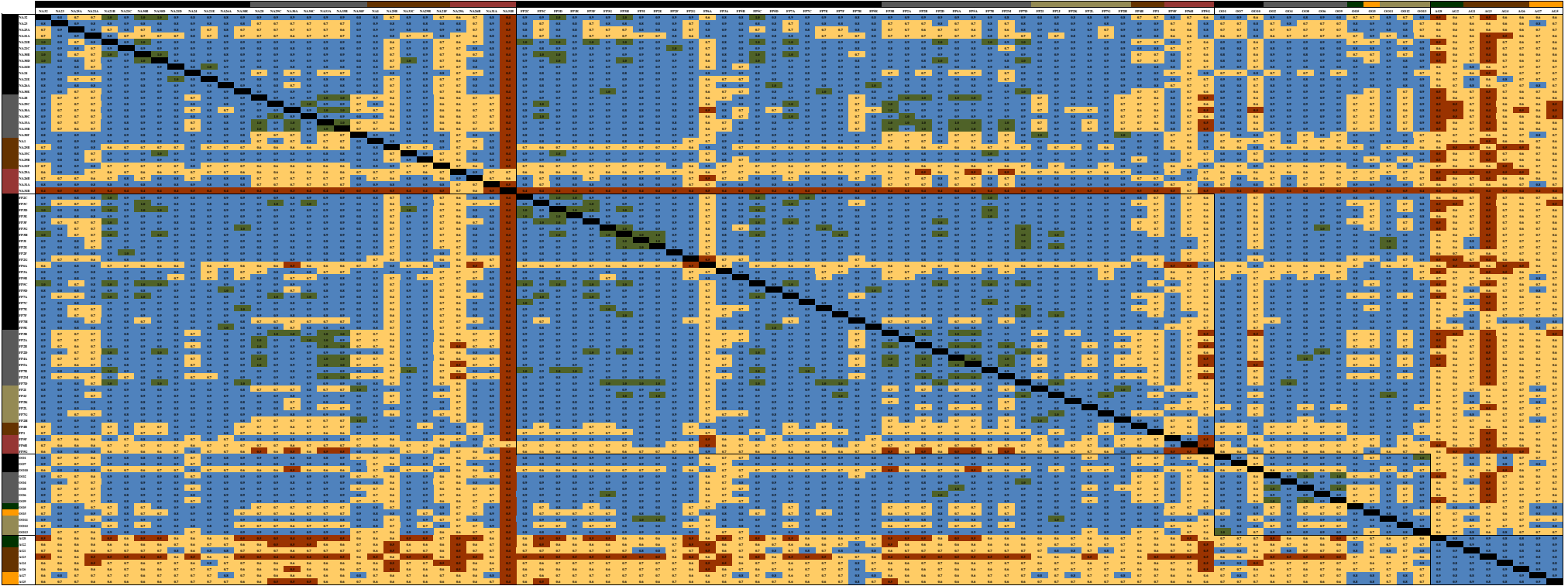


APPENDIX 5. Bray-Curtis similarity matrix comparing all barrow core produced in this study. From top-down and left-right: 20 american barrows (NA), 42 F. pennsylvanicus barrows (FP), 11 O. eremita barrows (OE), and 4.4 gigan barrows (G). Color bars along the sides and top indicate primary barrow architecture. Black = subvertical barrow, gray = vertical barrow, tan = J-shaped barrow, brown = helical barrow, orange = O-shaped barrow, dark green = stream barrow, yellow = U-shaped barrow. Colors inside the matrix indicate the level of similarity: green cells indicate identical barrows, blue cells indicate highly similar barrows, orange cells indicate moderately similar barrows and red cells indicate dissimilar barrows.



APPENDIX 6. Bray Curtis similarity matrices comparing the burrow architectures of *N. americanus*. 1) Comparison matrix of subvertical burrows. 2) Comparison matrix of vertical burrows. 3) Comparison matrix of helical burrows. 4) Comparison matrix of Type 1 and Type 2 O-shaped burrows. Colors inside the matrix indicate the level of similarity: green cells indicate identical burrows; blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

N. americanus

1. Subvertical Burrows

	NA32	NA23	NA25A	NA21A	NA21B	NA21C	NA30B	NA30D	NA21D	NA24	NA21E	NA26A	NA30E
NA32		0.8	0.7	0.7	1.0	0.9	1.0	1.0	0.9	0.8	0.9	0.8	0.9
NA23	0.8		0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8
NA25A	0.7	0.9		0.9	0.7	0.8	0.7	0.8	0.8	0.9	0.7	0.8	0.7
NA21A	0.7	0.8	0.9		0.8	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.7
NA21B	1.0	0.8	0.7	0.8		0.9	1.0	0.9	0.9	0.8	0.8	0.9	0.9
NA21C	0.9	0.9	0.8	0.7	0.9		0.9	0.9	0.9	0.9	0.9	0.9	0.9
NA30B	1.0	0.8	0.7	0.7	1.0	0.9		1.0	0.9	0.8	0.9	0.8	0.9
NA30D	1.0	0.8	0.8	0.7	0.9	0.9	1.0		0.9	0.8	0.9	0.9	0.9
NA21D	0.9	0.8	0.8	0.7	0.9	0.9	0.9	0.9		0.8	1.0	0.9	0.9
NA24	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8		0.8	0.9	0.8
NA21E	0.9	0.8	0.7	0.7	0.8	0.9	0.9	0.9	1.0	0.8		0.8	0.9
NA26A	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.8		0.9
NA30E	0.9	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	

2. Vertical Burrows

	NA28	NA29C	NA30A	NA30C	NA33A	NA33B	NA30F
NA28		0.9	0.9	0.9	1.0	1.0	0.7
NA29C	0.9		0.9	1.0	0.9	0.9	0.7
NA30A	0.9	0.9		0.9	1.0	1.0	0.7
NA30C	0.9	1.0	0.9		0.9	0.9	0.8
NA33A	1.0	0.9	1.0	0.9		1.0	0.7
NA33B	1.0	0.9	1.0	0.9	1.0		0.7
NA30F	0.7	0.7	0.7	0.8	0.7	0.7	

3. Helical Burrows

	NA1	NA25B	NA33C	NA29B	NA21F
NA1		0.8	0.9	0.8	0.8
NA25B	0.8		0.7	0.7	0.9
NA33C	0.9	0.7		0.9	0.7
NA29B	0.8	0.7	0.9		0.7
NA21F	0.8	0.9	0.7	0.7	

4. O-Shaped Burrows

	NA29A	NA26B	NA31A	NA31B
NA29A		0.9	0.7	0.7
NA26B	0.9		0.7	0.6
NA31A	0.7	0.7		0.5
NA31B	0.7	0.6	0.5	

APPENDIX 7. Bray Curtis similarity matrices comparing the burrow architectures of *F. penneri*. 1) Comparison matrix of subvertical burrows. 2) Comparison matrix of vertical burrows. 3) Comparison matrix of J-shaped burrows. 4) Comparison matrix of Type 1 and Type 2 O-shaped burrows. 5) Comparison matrix of helical burrows. Colors inside the matrix indicate the level of similarity; green cells indicate identical burrows; blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

F. penneri

1. Subvertical Burrows

	FP2C	FP3C	FP3D	FP3E	FP3F	FP3G	FP3H	FP3I	FP2E	FP2F	FP2G	FP6A	FP3A	FP5B	FP5C	FP5D	FP7A	FP7C	FP7E	FP7F	FP7H	FP5E
FP2C	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.8	0.9
FP3C	0.9	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.6	0.8	0.8	0.9	0.8	1.0	0.9	0.9	0.9	0.7	0.8
FP3D	1.0	0.9	0.9	1.0	1.0	0.9	1.0	0.9	0.9	0.7	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9
FP3E	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9
FP3F	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.8	0.8	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.9
FP3G	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.6	0.8	0.7	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.8	0.8
FP3H	0.9	0.9	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.6	0.8	0.8	1.0	0.9	0.9	0.9	0.9	1.0	0.8	0.9	0.9
FP3I	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9
FP2E	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9
FP2F	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
FP2G	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.5	0.5	0.7	0.7	0.9	0.8	0.9	0.8	0.9	0.9	0.7	0.8
FP6A	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.7	0.8	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.7
FP3A	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8
FP5B	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.8	0.9	0.8	0.9	0.7	0.8	0.8	0.9
FP5C	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.7	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.9
FP5D	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	1.0
FP7A	0.9	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.6	0.8	0.8	1.0	0.8	0.9	0.9	0.9	0.9	0.7	0.8
FP7C	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.9
FP7E	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.6	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8
FP7F	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
FP7H	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.7	0.7	0.8	0.8	0.8	0.9	0.7	0.8	0.8	0.9	0.9	0.9
FP5E	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.7	0.8	0.9	0.9	1.0	0.8	0.9	0.8	0.9	0.9	0.9

2. Vertical Burrows

	FP3B	FP2A	FP2B	FP2D	FP4A	FP5A	FP7B	FP2M	FP7D
FP3B	0.9	1.0	0.9	1.0	1.0	0.9	0.9	0.9	0.9
FP2A	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
FP2B	1.0	0.9	0.9	1.0	1.0	0.9	1.0	0.9	0.9
FP2D	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9
FP4A	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	0.9
FP5A	1.0	0.9	1.0	0.9	1.0	0.9	1.0	0.9	0.9
FP7B	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
FP2M	0.9	0.9	1.0	0.9	1.0	1.0	0.9	0.9	0.9
FP7D	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9

3. J-Shaped Burrows

	FP2I	FP2J	FP2K	FP2L	FP7G	FP2H
FP2I	0.9	0.9	0.9	0.9	0.8	1.0
FP2J	0.9	0.9	0.9	0.8	1.0	0.9
FP2K	0.9	0.9	0.9	0.9	0.9	0.9
FP2L	0.9	0.8	0.9	0.9	0.8	0.9
FP7G	0.8	1.0	0.9	0.8	0.8	0.8
FP2H	1.0	0.9	0.9	0.9	0.8	0.9

4. O-Shaped Burrows

	FP5F	FP6B	FP5G
FP5F	0.8	0.8	0.5
FP6B	0.8	0.8	0.5
FP5G	0.5	0.5	0.5

5. Helical Burrows

	FP4B	FP1
FP4B	0.9	0.9
FP1	0.9	0.9

APPENDIX 8. Bray Curtis similarity matrices comparing the similar burrow architectures produced by *N. americanus* (NA) and *F. penneri* (FP). 1) Comparison matrix of subvertical burrows. 2) Comparison matrix of vertical burrows. 3) Comparison matrix of helical burrows. 4) Comparison matrix of O-shaped burrows. Colors inside the matrix indicate the level of similarity: green cells indicate identical burrows; blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

N. americanus vs. *F. penneri*

1. Subvertical Burrows

	NA32	NA23	NA25A	NA21A	NA21B	NA21C	NA30B	NA30D	NA21D	NA24	NA21E	NA26A	NA30E
FP2C	0.9	0.8	0.8	0.8	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP3C	0.9	0.7	0.7	0.7	0.9	0.8	1.0	0.9	0.8	0.8	0.8	0.8	0.9
FP3D	1.0	0.8	0.8	0.8	1.0	0.9	1.0	1.0	0.9	0.8	0.9	0.9	0.9
FP3E	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP3F	0.9	0.7	0.7	0.7	1.0	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.9
FP3G	0.9	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.8	1.0
FP3H	1.0	0.8	0.7	0.7	1.0	0.9	0.9	1.0	0.9	0.8	0.9	0.9	0.9
FP3I	0.9	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP2E	0.9	0.8	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP2F	0.9	0.9	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
FP2G	0.9	0.7	0.7	0.6	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.9
FP6A	0.6	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.8	0.6	0.7	0.6
FP3A	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.7	0.8	0.7
FP5B	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.9	0.7	0.9	0.7
FP5C	1.0	0.8	0.7	0.8	1.0	0.9	1.0	1.0	0.9	0.8	0.9	0.9	0.9
FP5D	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.8	1.0	0.8
FP7A	0.9	0.7	0.7	0.8	1.0	0.8	1.0	0.9	0.8	0.8	0.8	0.8	0.9
FP7C	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP7E	0.9	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.8	1.0
FP7F	0.9	0.8	0.7	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
FP7H	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.9	0.8
FP5E	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.9	0.8	1.0	0.8

2. Vertical Burrows

	NA28	NA29C	NA30A	NA30C	NA33A	NA33B	NA30F
FP3B	0.9	1.0	1.0	0.9	1.0	1.0	0.7
FP2A	1.0	0.9	0.9	1.0	1.0	0.9	0.7
FP2B	1.0	0.9	0.9	0.9	1.0	1.0	0.7
FP2D	0.9	0.9	0.9	0.9	0.9	0.9	0.8
FP4A	1.0	0.9	0.9	0.9	1.0	1.0	0.7
FP5A	1.0	0.9	0.9	0.9	1.0	1.0	0.7
FP7B	0.9	0.9	0.8	0.9	0.9	0.9	0.8
FP2M	0.9	0.9	0.9	0.9	1.0	1.0	0.7
FP7D	0.9	0.9	0.9	0.9	0.9	0.9	0.8

3. Helical Burrows

	NA1	NA25B	NA33C	NA29B	NA21F
FP4B	0.9	0.9	0.8	0.7	0.9
FP1	0.9	0.8	0.8	0.8	0.9

4. O-Shaped Burrows

	NA29A	NA26B	FP5F	FP6B	NA31A	NA31B	NA5G
NA29A		0.9	0.7	0.8	0.7	0.7	0.7
NA26B	0.9		0.8	0.9	0.7	0.6	0.6
FP5F	0.7	0.8		0.8	0.7	0.5	0.5
FP6B	0.8	0.9	0.8		0.7	0.7	0.5
NA31A	0.7	0.7	0.7	0.7		0.5	0.8
NA31B	0.7	0.6	0.5	0.7	0.5		0.5
NA5G	0.7	0.6	0.5	0.5	0.8	0.5	

APPENDIX 9. Bray Curtis similarity matrix comparing burrows produced by *N. americanus* (NA) to burrows produced by *O. ornatus* (OO). Cells outlined in thick black lines in the matrix indicate comparison of burrows with the same architecture. OO1, OO7, and OO10 are subvertical burrows. OO2, OO4, OO6, OO8, and OO9 are vertical burrows. OO5 is a sinuous burrow. OO3 is a U-shaped burrow. OO11–13 are J-shaped burrows. Colors inside the matrix indicate the level of similarity: blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

N. americanus vs. *O. ornatus*

	OO1	OO7	OO10	OO2	OO4	OO8	OO6	OO9	OO5	OO3	OO11	OO12	OO13
NA32	0.8	0.9	0.6	0.9	0.9	0.8	0.9	0.8	0.7	0.7	0.9	0.7	0.8
NA23	0.7	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.9	0.8	0.9	0.7
NA25A	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.7
NA21A	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.9	0.7	0.8	0.6
NA21B	0.9	0.9	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.9	0.7	0.9
NA21C	0.8	0.8	0.7	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8
NA30B	0.8	0.8	0.6	0.9	0.9	0.8	0.9	0.8	0.7	0.7	0.9	0.7	0.8
NA30D	0.8	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.9	0.8	0.9
NA21D	0.9	0.9	0.7	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.9
NA24	0.7	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.9	0.9	0.8	0.8	0.7
NA21E	0.9	0.9	0.7	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.9
NA26A	0.8	0.8	0.7	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
NA30E	0.9	0.9	0.6	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.9	0.7	0.9
NA28	0.9	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
NA29C	0.9	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
NA30A	0.8	0.8	0.5	0.9	0.8	0.9	0.9	0.9	0.7	0.6	0.8	0.6	0.8
NA30C	0.8	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
NA33A	0.8	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
NA33B	0.9	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
NA30F	0.7	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.9	0.9	0.8	0.9	0.7
NA1	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7
NA25B	0.6	0.6	0.8	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.7	0.6
NA33C	0.8	0.8	0.7	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
NA29B	0.9	0.9	0.6	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.9	0.7	0.9
NA21F	0.6	0.7	0.9	0.6	0.7	0.6	0.7	0.6	0.8	0.9	0.7	0.8	0.6
NA29A	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.6
NA26B	0.7	0.8	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
NA31A	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.9	0.9	0.8	0.9	0.7
NA31B	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.4

APPENDIX 10. Bray Curtis similarity matrix comparing burrows produced by *F. penneri* (FP) to burrows produced by *O. ornatus* (OO). Cells outlined in thick black lines in the matrix indicate comparison of burrows with the same architecture. OO1, OO7, and OO10 are subvertical burrows. OO2, OO4, OO6, OO8, and OO9 are vertical burrows. OO5 is a sinuous burrow. OO3 is a U-shaped burrow. OO11–13 are J-shaped burrows. Colors inside the matrix indicate the level of similarity: green cells indicate identical burrows; blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

F. penneri vs. *O. ornatus*

	OO1	OO7	OO10	OO2	OO4	OO8	OO6	OO9	OO5	OO3	OO11	OO12	OO13
FP2C	0.8	0.9	0.7	0.8	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8
FP3C	0.8	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.9	0.7	0.8
FP3D	0.8	0.9	0.6	0.9	0.9	0.8	0.9	0.9	0.8	0.7	0.9	0.7	0.8
FP3E	0.8	0.9	0.6	0.8	0.9	0.8	0.9	0.8	0.8	0.7	0.9	0.8	0.8
FP3F	0.9	0.9	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.9	0.7	0.9
FP3G	0.9	0.9	0.6	0.9	0.9	0.9	1.0	0.9	0.8	0.7	0.9	0.7	0.9
FP3H	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
FP3I	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.8	0.9
FP2E	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.8	0.9
FP2F	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.8
FP2G	0.9	0.8	0.6	0.9	0.9	0.8	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP6A	0.6	0.6	0.9	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.6	0.7	0.6
FP3A	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7
FP5B	0.7	0.8	0.7	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.7
FP5C	0.8	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.9	0.8	0.9
FP5D	0.8	0.9	0.7	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
FP7A	0.8	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.9	0.7	0.9
FP7C	0.8	0.9	0.7	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
FP7E	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.9	0.8	0.9
FP7F	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
FP7H	0.8	0.9	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.8	0.9	0.9	0.8
FP5E	0.8	0.9	0.7	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.8
FP3B	0.8	0.8	0.5	0.9	0.8	0.9	0.9	0.9	0.7	0.6	0.8	0.6	0.8
FP2A	0.9	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP2B	0.9	0.8	0.6	0.9	0.8	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP2D	0.9	0.9	0.7	0.9	0.9	0.9	1.0	0.9	0.8	0.8	0.9	0.8	0.9
FP4A	0.9	0.8	0.6	0.9	0.9	1.0	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP5A	0.9	0.8	0.5	0.9	0.8	0.9	0.9	0.9	0.7	0.6	0.8	0.7	0.9
FP7B	0.8	0.9	0.7	0.8	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8
FP2M	0.9	0.8	0.6	0.9	0.8	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP7D	0.9	0.9	0.7	0.9	1.0	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
FP2I	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8
FP2J	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.8	0.9
FP2K	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.9	0.8
FP2L	0.7	0.8	0.7	0.8	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.7
FP7G	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.9
FP2H	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.8
FP4B	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.8	0.9	0.7
FP1	0.7	0.7	0.8	0.7	0.7	0.6	0.7	0.7	0.8	0.9	0.8	0.8	0.7
FP5F	0.9	0.8	0.6	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.8	0.7	0.9
FP6B	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.8	0.6	0.7
FP5G	0.6	0.6	0.9	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.6	0.7	0.6

APPENDIX 11. Bray Curtis similarity matrix comparing burrows produced by *N. americanus* (NA) to burrows produced by *A. gigas* (AG). Cells outlined in thick black lines in the matrix indicate comparison of burrows of the same architecture. AG2 and AG8 are sinuous burrows. AG1, AG3, AG4, and AG6 are helical burrows. AG7 and AG5 are U-shaped burrows. Colors inside the matrix indicate the level of similarity: blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

N. americanus vs. *A. gigas*

	AG8	AG2	AG1	AG3	AG4	AG6	AG7	AG5
NA32	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
NA23	0.6	0.6	0.6	0.6	0.6	0.6	0.8	0.7
NA25A	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
NA21A	0.6	0.6	0.6	0.5	0.5	0.6	0.7	0.6
NA21B	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
NA21C	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
NA30B	0.5	0.6	0.7	0.4	0.6	0.6	0.6	0.6
NA30D	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
NA21D	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7
NA24	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.7
NA21E	0.6	0.7	0.8	0.6	0.8	0.7	0.7	0.7
NA26A	0.6	0.7	0.8	0.6	0.7	0.7	0.8	0.7
NA30E	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
NA28	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
NA29C	0.5	0.5	0.7	0.4	0.6	0.6	0.6	0.5
NA30A	0.4	0.5	0.6	0.4	0.6	0.5	0.6	0.5
NA30C	0.5	0.5	0.7	0.4	0.6	0.6	0.6	0.5
NA33A	0.5	0.6	0.7	0.4	0.6	0.6	0.6	0.6
NA33B	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
NA30F	0.6	0.7	0.7	0.6	0.6	0.7	0.8	0.7
NA1	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6
NA25B	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.6
NA33C	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
NA29B	0.5	0.6	0.7	0.5	0.7	0.6	0.6	0.6
NA21F	0.7	0.6	0.6	0.6	0.5	0.6	0.7	0.6
NA29A	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
NA26B	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
NA31A	0.6	0.7	0.7	0.6	0.6	0.7	0.8	0.7
NA31B	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4

APPENDIX 12. Bray Curtis similarity matrix comparing burrows produced by *F. penneri* (FP) to burrows produced by *A. gigas* (AG). Cells outlined in thick black lines in the matrix indicate comparison of burrows of the same architecture. AG2 and AG8 are sinuous burrows. AG1, AG3, AG4, and AG6 are helical burrows. AG7 and AG5 are U-shaped burrows. Colors inside the matrix indicate the level of similarity: blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

F. penneri vs *A. gigas*

	AG8	AG2	AG1	AG3	AG4	AG6	AG7	AG5
FP2C	0.6	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP3C	0.5	0.5	0.7	0.4	0.6	0.6	0.6	0.5
FP3D	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP3E	0.6	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP3F	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP3G	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP3H	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
FP3I	0.6	0.6	0.8	0.5	0.7	0.7	0.7	0.6
FP2E	0.6	0.6	0.8	0.5	0.7	0.7	0.7	0.6
FP2F	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.7
FP2G	0.5	0.5	0.7	0.4	0.6	0.6	0.6	0.6
FP6A	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.6
FP3A	0.5	0.6	0.6	0.5	0.5	0.6	0.7	0.6
FP5B	0.7	0.7	0.7	0.6	0.6	0.7	0.8	0.7
FP5C	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP5D	0.6	0.7	0.8	0.6	0.7	0.7	0.8	0.7
FP7A	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
FP7C	0.6	0.6	0.8	0.5	0.7	0.7	0.7	0.6
FP7E	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
FP7F	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7
FP7H	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8
FP5E	0.6	0.7	0.8	0.6	0.7	0.7	0.8	0.7
FP3B	0.5	0.5	0.6	0.4	0.6	0.6	0.6	0.5
FP2A	0.5	0.6	0.7	0.4	0.6	0.6	0.6	0.6
FP2B	0.5	0.6	0.7	0.5	0.7	0.6	0.6	0.6
FP2D	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
FP4A	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
FP5A	0.5	0.6	0.7	0.5	0.6	0.6	0.6	0.6
FP7B	0.6	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP2M	0.6	0.6	0.7	0.5	0.7	0.6	0.7	0.6
FP7D	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
FP2I	0.6	0.7	0.7	0.6	0.6	0.7	0.8	0.7
FP2J	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7
FP2K	0.7	0.7	0.8	0.6	0.7	0.7	0.8	0.7
FP2L	0.6	0.6	0.7	0.5	0.6	0.7	0.7	0.6
FP7G	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7
FP2H	0.7	0.7	0.7	0.6	0.7	0.7	0.8	0.7
FP4B	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.7
FP1	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.7
FP5F	0.6	0.6	0.7	0.5	0.7	0.6	0.6	0.6
FP6B	0.5	0.6	0.7	0.5	0.7	0.6	0.6	0.6
FP5G	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6

APPENDIX 13. Bray Curtis similarity matrix comparing burrows produced by *O. ornatus* (OO) to burrows produced by *A. gigas* (AG). Cells outlined in thick black lines in the matrix indicate comparison of burrows of the same architecture. OO1, OO7, and OO10 are subvertical burrows. OO2, OO4, OO6, OO8, and OO9 are vertical burrows. OO5 is a sinuous burrow. OO3 is a U-shaped burrow. OO11–13 are J-shaped burrows. AG2 and AG8 are sinuous burrows. AG1, AG3, AG4, and AG6 are helical burrows. AG7 and AG5 are U-shaped burrows. Colors inside the matrix indicate the level of similarity: blue cells indicate highly similar burrows; orange cells indicate moderately similar burrows; red cells indicate dissimilar burrows.

O. ornatus* vs. *A. gigas

	AG8	AG2	AG1	AG3	AG4	AG6	AG7	AG5
OO1	0.7	0.7	0.8	0.6	0.8	0.7	0.7	0.7
OO7	0.7	0.7	0.8	0.6	0.8	0.7	0.8	0.7
OO10	0.7	0.6	0.6	0.6	0.5	0.6	0.7	0.7
OO2	0.5	0.6	0.7	0.5	0.7	0.6	0.6	0.6
OO4	0.6	0.7	0.8	0.5	0.7	0.7	0.7	0.7
OO8	0.6	0.6	0.7	0.5	0.7	0.6	0.7	0.6
OO6	0.6	0.6	0.7	0.5	0.7	0.7	0.7	0.6
OO9	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.6
OO5	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.8
OO3	0.7	0.7	0.7	0.6	0.6	0.7	0.8	0.8
OO11	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7
OO12	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
OO13	0.6	0.7	0.8	0.6	0.8	0.7	0.7	0.7