

Figure 2	Comparison	N number	Methods	P value	Statistical values
2E	Effect of species on overall microbiota composition assessed using Jaccard distances	35 <i>Liometopum</i> , 9 <i>Myrmecophilus</i> , 44 <i>Sceptobius</i> , 2 <i>Liometoxenus</i> , 19 <i>Platyusa</i> , 4 <i>Pella</i> , 5 <i>Lasius</i> , 4 <i>Drusilla</i> , 5 <i>Lissagria</i>	PERMANOVA	0.001	$F = 3.1348, R^2 = 0.1943$
	Effect of species on overall microbiota composition assessed using Bray-Curtis dissimilarity			0.001	$F = 14.535, R^2 = 0.5279$
2F	Effect of colony identity (nest site) on overall microbiota composition assessed using Jaccard distances	33 <i>Liometopum</i> , 9 <i>Myrmecophilus</i> , 44 <i>Sceptobius</i> , 2 <i>Liometoxenus</i> , 19 <i>Platyusa</i>	PERMANOVA	0.001	$F = 1.4603, R^2 = 0.0490$
	Effect of the interaction between species and nest site on overall microbiota composition assessed using Jaccard distances			0.008	$F = 1.1102, R^2 = 0.0838$

(not shown)	Effect of colony identity (nest site) on overall microbiota composition assessed using Jaccard distances, restricted to gut samples	13 <i>Liometopum</i> , 11 <i>Sceptobius</i> , 6 <i>Platyusa</i>		0.084	$F = 1.1502, R^2 = 0.1329$
	Effect of colony identity (nest site) on overall microbiota composition assessed using Jaccard distances, restricted to head samples	14 <i>Sceptobius</i> , 5 <i>Platyusa</i>		0.064	$F = 1.1020, R^2 = 0.2258$
Figure 3	Comparison	N number	Methods	P value	Statistical values
3A	Jaccard distances between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Myrmecophilus</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances, 85 <i>Liometopum</i> vs. <i>Platyusa</i> distances (derived from 31 <i>Liometopum</i> samples, 28 <i>Sceptobius</i> samples, 9 <i>Myrmecophilus</i> samples, and 13 <i>Platyusa</i> samples)	Kruskal-Wallis test	$< 2.2 \times 10^{-16}$	$H = 103.31$
	Jaccard distances between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Myrmecophilus</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances	Post-hoc: Dunn's test (p -values adjusted with the Holm method)	0.0018	$Z = 3.1268$

	Jaccard distances between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 85 <i>Liometopum</i> vs. <i>Platyusa</i> distances		9.1980 x 10 ⁻²⁴	Z = 10.1576
	Jaccard distances between <i>Liometopum</i> and <i>Myrmecophilus</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances, 85 <i>Liometopum</i> vs. <i>Platyusa</i> distances		3.48 x 10 ⁻⁸	Z = -5.6356
3B	Jaccard distances between wash samples of <i>Liometopum</i> and <i>Sceptobius</i> , versus wash samples of <i>Liometopum</i> and <i>Myrmecophilus</i> , versus wash samples of <i>Liometopum</i> and <i>Platyusa</i>	71 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 31 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances, 80 <i>Liometopum</i> vs. <i>Platyusa</i> distances (derived from 23 <i>Liometopum</i> samples, 17 <i>Sceptobius</i> samples, 9 <i>Myrmecophilus</i> samples, and 16 <i>Platyusa</i> samples)	Kruskal-Wallis test	3.084 x 10 ⁻⁹	H = 39.194
	Jaccard distances between wash samples of <i>Liometopum</i> and <i>Sceptobius</i> , versus wash samples of <i>Liometopum</i> and <i>Myrmecophilus</i>	71 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 31 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances	Post-hoc: Dunn's test (<i>p</i> -values adjusted with the Holm method)	0.8918	Z = 0.2278
	Jaccard distances between wash samples of <i>Liometopum</i> and <i>Sceptobius</i> , versus wash samples of <i>Liometopum</i> and <i>Platyusa</i>	71 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 80 <i>Liometopum</i> vs. <i>Platyusa</i> distances		1.7443 x 10 ⁻⁸	Z = 5.8220
	Jaccard distances between wash samples of <i>Liometopum</i> and <i>Myrmecophilus</i> , versus wash samples of <i>Liometopum</i> and <i>Platyusa</i>	31 <i>Liometopum</i> vs. <i>Myrmecophilus</i> distances, 80 <i>Liometopum</i> vs. <i>Platyusa</i> distances		4.1785 x 10 ⁻⁵	Z = -4.2551

3D	Jaccard distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> heads	228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 228 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> heads distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 12 <i>Sceptobius</i> heads)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	7.4405 x 10 ⁻⁶	W = 19482
	Jaccard distances between <i>Liometopum</i> bodies and <i>Sceptobius</i> heads, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> bodies	228 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> heads distances, 171 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> bodies (derived from 19 <i>Liometopum</i> bodies, 12 <i>Sceptobius</i> heads, and 9 <i>Sceptobius</i> bodies)		0.0090	W = 16359
	Jaccard distances between <i>Liometopum</i> bodies and <i>Sceptobius</i> bodies, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> guts	171 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> bodies, 76 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> guts (derived from 19 <i>Liometopum</i> bodies, 9 <i>Sceptobius</i> bodies, and 4 <i>Sceptobius</i> guts)		5.1776 x 10 ⁻¹⁰	W = 3134.5
	Jaccard distances between <i>Liometopum</i> bodies and <i>Sceptobius</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> bodies	76 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> guts, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> bodies (derived from 19 <i>Liometopum</i> bodies, 4 <i>Sceptobius</i> guts, and 5 <i>Platyusa</i> bodies)		1.4556 x 10 ⁻⁶	W = 1991

	Jaccard distances between <i>Liometopum</i> bodies and <i>Platyusa</i> bodies, versus <i>Liometopum</i> bodies and <i>Platyusa</i> guts	95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> bodies, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> guts (derived from 19 <i>Liometopum</i> bodies, 5 <i>Platyusa</i> bodies, and 5 <i>Platyusa</i> guts)		0.9295	W = 4478.5
	Jaccard distances between <i>Liometopum</i> bodies and <i>Platyusa</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> heads	95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> guts, 38 <i>Liometopum</i> bodies vs. <i>Platyusa</i> heads (derived from 19 <i>Liometopum</i> bodies, 5 <i>Platyusa</i> guts, and 2 <i>Platyusa</i> heads)		0.5768	W = 1664
Figure S2	Comparison	N number	Methods	P value	Statistical values
S2A	Effect of location on nest microbiota composition, assessed using Jaccard distances	3 First Tree, 3 Mile High, 3 Post, 3 Rocks, 3 Sleepy Tree	PERMANOVA	0.003	$F = 1.2803$, $R^2 = 0.3387$
	Effect of location on nest microbiota composition, assessed using Bray-Curtis dissimilarity	3 First Tree, 3 Mile High, 3 Post, 3 Rocks, 3 Sleepy Tree		0.039	$F = 1.7922$, $R^2 = 0.4176$
S2B	Jaccard distances between nest and wash samples, vs. Jaccard distances between nest and body part samples	975 Nest vs. Wash distances, 1575 Nest vs. Body Parts distances (derived from 15 Nest samples, 65 Wash samples, and 105 Body Parts samples)	Wilcoxon test	$< 2.2 \times 10^{-16}$	W= 229314

	Bray-Curtis dissimilarities between nest and wash samples, vs. Bray-Curtis dissimilarities between nest and body part samples	975 Nest vs. Wash distances, 1575 Nest vs. Body Parts distances (derived from 15 Nest samples, 65 Wash samples, and 105 Body Parts samples)		$< 2.2 \times 10^{-16}$	W = 230802
Figure S3	Comparison	N number	Methods	P value	Statistical values
S3	Bray-Curtis dissimilarities between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Myrmecophilus</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> dissimilarities, 66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> dissimilarities, 85 <i>Liometopum</i> vs. <i>Platyusa</i> dissimilarities (derived from 31 <i>Liometopum</i> samples, 28 <i>Sceptobius</i> samples, 9 <i>Myrmecophilus</i> samples, and 13 <i>Platyusa</i> samples)	Kruskal-Wallis test	5.197×10^{-8}	H = 33.545
	Bray-Curtis dissimilarities between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Myrmecophilus</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> dissimilarities, 66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> dissimilarities	Post-hoc: Dunn's test (p -values adjusted with the Holm method)	0.0136	Z = 2.7062
	Bray-Curtis dissimilarities between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	144 <i>Liometopum</i> vs. <i>Sceptobius</i> dissimilarities, 85 <i>Liometopum</i> vs. <i>Platyusa</i> dissimilarities		2.890×10^{-8}	Z = 5.7371
	Bray-Curtis dissimilarities between <i>Liometopum</i> and <i>Myrmecophilus</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	66 <i>Liometopum</i> vs. <i>Myrmecophilus</i> dissimilarities, 85 <i>Liometopum</i> vs. <i>Platyusa</i> dissimilarities		0.0197	Z = -2.3311

Figure S4	Comparison	N number	Methods	P value	Statistical values
S4A	Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> bodies	228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts dissimilarities, 171 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> bodies dissimilarities (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 9 <i>Sceptobius</i> bodies)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	0.0204	W = 16566
	Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Sceptobius</i> bodies, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> heads	171 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> bodies dissimilarities, 228 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> heads dissimilarities (derived from 19 <i>Liometopum</i> bodies, 9 <i>Sceptobius</i> bodies, and 12 <i>Sceptobius</i> heads)		0.8939	W = 19646
	Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Sceptobius</i> heads, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> guts	228 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> heads dissimilarities, 76 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> guts dissimilarities (derived from 19 <i>Liometopum</i> bodies, 12 <i>Sceptobius</i> heads, and 4 <i>Sceptobius</i> guts)		4.928 x 10 ⁻⁵	W = 5804.5
	Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Sceptobius</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> bodies	76 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> guts dissimilarities, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> bodies dissimilarities (derived from 19 <i>Liometopum</i> bodies, 4 <i>Sceptobius</i> guts, and 5 <i>Platyusa</i> bodies)		4.928 x 10 ⁻⁵	W = 2213

	<p>Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Platyusa</i> bodies, versus <i>Liometopum</i> bodies and <i>Platyusa</i> guts</p> <p>Bray-Curtis dissimilarities between <i>Liometopum</i> bodies and <i>Platyusa</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> heads</p>	<p>95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> bodies dissimilarities, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> guts dissimilarities (derived from 19 <i>Liometopum</i> bodies, 5 <i>Platyusa</i> bodies, and 5 <i>Platyusa</i> guts)</p> <p>95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> guts dissimilarities, 38 <i>Liometopum</i> bodies vs. <i>Platyusa</i> heads dissimilarities (derived from 19 <i>Liometopum</i> bodies, 5 <i>Platyusa</i> guts, and 2 <i>Platyusa</i> heads)</p>		<p>0.5529</p> <p>0.1767</p>	<p>W = 4233</p> <p>W = 1493</p>
S4B	<p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Sceptobius</i> guts, versus <i>Liometopum</i> guts and <i>Liometopum</i> bodies</p> <p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> heads</p>	<p>48 <i>Liometopum</i> guts vs. <i>Sceptobius</i> guts dissimilarities, 228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies dissimilarities (derived from 12 <i>Liometopum</i> guts, 4 <i>Sceptobius</i> guts, and 19 <i>Liometopum</i> bodies)</p> <p>228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies dissimilarities, 144 <i>Liometopum</i> guts vs. <i>Sceptobius</i> heads dissimilarities (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 12 <i>Sceptobius</i> heads)</p>	<p>Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate</p>	<p>0.8311</p> <p>0.8311</p>	<p>W = 5596.5</p> <p>W = 16200</p>

<p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Sceptobius</i> heads, versus <i>Liometopum</i> guts and <i>Sceptobius</i> bodies</p>	<p>144 <i>Liometopum</i> guts vs. <i>Sceptobius</i> heads dissimilarities, 108 <i>Liometopum</i> guts vs. <i>Sceptobius</i> bodies dissimilarities (derived from 12 <i>Liometopum</i> guts, 12 <i>Sceptobius</i> heads, and 9 <i>Sceptobius</i> bodies)</p>	<p>0.8311</p>	<p>W = 7368.5</p>
<p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Sceptobius</i> bodies, versus <i>Liometopum</i> guts and <i>Platyusa</i> bodies</p>	<p>108 <i>Liometopum</i> guts vs. <i>Sceptobius</i> bodies dissimilarities, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> bodies dissimilarities (derived from 12 <i>Liometopum</i> guts, 9 <i>Sceptobius</i> bodies, and 5 <i>Platyusa</i> bodies)</p>	<p>2.1613 x 10⁻¹⁶</p>	<p>W = 695</p>
<p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Platyusa</i> bodies, versus <i>Liometopum</i> guts and <i>Platyusa</i> guts</p>	<p>60 <i>Liometopum</i> guts vs. <i>Platyusa</i> bodies dissimilarities, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts dissimilarities (derived from 12 <i>Liometopum</i> guts, 5 <i>Platyusa</i> bodies, and 5 <i>Platyusa</i> guts)</p>	<p>0.4148</p>	<p>W = 1518</p>
<p>Bray-Curtis dissimilarities between <i>Liometopum</i> guts and <i>Platyusa</i> guts, versus <i>Liometopum</i> guts and <i>Platyusa</i> heads</p>	<p>60 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts dissimilarities, 24 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts dissimilarities (derived from 12 <i>Liometopum</i> guts, 5 <i>Platyusa</i> guts, and 2 <i>Platyusa</i> heads)</p>	<p>0.8311</p>	<p>W = 679.5</p>

S4C	Jaccard distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> heads	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 144 <i>Liometopum</i> guts vs. <i>Sceptobius</i> heads distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 12 <i>Sceptobius</i> heads)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	6.8820 x 10 ⁻¹⁰	W = 9903.5
	Jaccard distances between <i>Liometopum</i> guts and <i>Sceptobius</i> heads, versus <i>Liometopum</i> guts and <i>Sceptobius</i> bodies	144 <i>Liometopum</i> guts vs. <i>Sceptobius</i> heads distances, 108 <i>Liometopum</i> guts vs. <i>Sceptobius</i> bodies distances (derived from 12 <i>Liometopum</i> guts, 12 <i>Sceptobius</i> heads, and 9 <i>Sceptobius</i> bodies)		0.3696	W = 7113.5
	Jaccard distances between <i>Liometopum</i> guts and <i>Sceptobius</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> guts	108 <i>Liometopum</i> guts vs. <i>Sceptobius</i> bodies distances, 48 <i>Liometopum</i> guts vs. <i>Sceptobius</i> guts distances (derived from 12 <i>Liometopum</i> guts, 9 <i>Sceptobius</i> bodies, and 4 <i>Sceptobius</i> guts)		0.3696	W = 2326
	Jaccard distances between <i>Liometopum</i> guts and <i>Sceptobius</i> guts, versus <i>Liometopum</i> guts and <i>Platyusa</i> guts	48 <i>Liometopum</i> guts vs. <i>Sceptobius</i> guts distances, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts distances (derived from 12 <i>Liometopum</i> guts, 4 <i>Sceptobius</i> guts, and 5 <i>Platyusa</i> guts)		3.9620 x 10 ⁻⁶	W = 658.5
	Jaccard distances between <i>Liometopum</i> guts and <i>Platyusa</i> guts, versus <i>Liometopum</i> guts and <i>Platyusa</i> bodies	60 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts distances, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> bodies distances (derived from 12 <i>Liometopum</i> guts, 5 <i>Platyusa</i> guts, and 5 <i>Platyusa</i> bodies)		0.7050	W = 1872.5

	Jaccard distances between <i>Liometopum</i> guts and <i>Platyusa</i> bodies, versus <i>Liometopum</i> guts and <i>Platyusa</i> heads	60 <i>Liometopum</i> guts vs. <i>Platyusa</i> bodies distances, 24 <i>Liometopum</i> guts vs. <i>Platyusa</i> heads distances (derived from 12 <i>Liometopum</i> guts, 5 <i>Platyusa</i> bodies, and 2 <i>Platyusa</i> heads)		0.3696	W = 599.5
S4D	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Liometopum</i> bodies, versus <i>Liometopum</i> wash samples and <i>Sceptobius</i> heads	437 <i>Liometopum</i> wash samples vs. <i>Liometopum</i> bodies dissimilarities, 276 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> heads dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 19 <i>Liometopum</i> bodies, and 12 <i>Sceptobius</i> heads)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	5.9037 x 10 ⁻³¹	W = 28906
	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Sceptobius</i> heads, versus <i>Liometopum</i> wash samples and <i>Sceptobius</i> bodies	276 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> heads dissimilarities, 207 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> bodies dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 12 <i>Sceptobius</i> heads, and 9 <i>Sceptobius</i> bodies)		0.2251	W = 26724
	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Sceptobius</i> bodies, versus <i>Liometopum</i> wash samples and <i>Sceptobius</i> guts	207 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> bodies dissimilarities, 92 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> guts dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 9 <i>Sceptobius</i> bodies, and 4 <i>Sceptobius</i> guts)		0.0002	W = 6816.5

	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Sceptobius</i> guts, versus <i>Liometopum</i> wash samples and <i>Platyusa</i> bodies	92 <i>Liometopum</i> wash samples vs. <i>Sceptobius</i> guts dissimilarities, 115 <i>Liometopum</i> wash samples vs. <i>Platyusa</i> bodies dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 4 <i>Sceptobius</i> guts, and 5 <i>Platyusa</i> bodies)		1.3758 x 10 ⁻⁹	W = 2623
	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Platyusa</i> bodies, versus <i>Liometopum</i> wash samples and <i>Platyusa</i> guts	115 <i>Liometopum</i> wash samples vs. <i>Platyusa</i> bodies dissimilarities, 115 <i>Liometopum</i> wash samples vs. <i>Platyusa</i> guts dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 5 <i>Platyusa</i> bodies, and 5 <i>Platyusa</i> guts)		0.1056	W = 5701
	Bray-Curtis dissimilarities between <i>Liometopum</i> wash samples and <i>Platyusa</i> guts, versus <i>Liometopum</i> wash samples and <i>Platyusa</i> heads	115 <i>Liometopum</i> wash samples vs. <i>Platyusa</i> guts dissimilarities, 46 <i>Liometopum</i> wash samples vs. <i>Platyusa</i> guts dissimilarities (derived from 23 <i>Liometopum</i> wash samples, 5 <i>Platyusa</i> guts, and 2 <i>Platyusa</i> heads)		0.2179	W = 2290.5
S4E	Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> heads	228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 228 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> heads distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 12 <i>Sceptobius</i> heads)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	0.7201	W = 25296

<p>Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> guts</p>	<p>228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 76 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> guts distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 4 <i>Sceptobius</i> guts)</p>	<p>0.5305</p>	<p>W = 9280</p>
<p>Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Sceptobius</i> bodies</p>	<p>228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 171 <i>Liometopum</i> bodies vs. <i>Sceptobius</i> bodies distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 9 <i>Sceptobius</i> bodies)</p>	<p>0.7201</p>	<p>W = 19085</p>
<p>Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> bodies</p>	<p>228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> bodies distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 5 <i>Platyusa</i> bodies)</p>	<p>5.2830 x 10⁻⁸</p>	<p>W = 6521</p>
<p>Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> heads</p>	<p>228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 38 <i>Liometopum</i> bodies vs. <i>Platyusa</i> heads distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 2 <i>Platyusa</i> heads)</p>	<p>7.4529 x 10⁻⁴</p>	<p>W = 2769</p>

	Weighted UniFrac distances between <i>Liometopum</i> bodies and <i>Liometopum</i> guts, versus <i>Liometopum</i> bodies and <i>Platyusa</i> guts	228 <i>Liometopum</i> bodies vs. <i>Liometopum</i> guts distances, 95 <i>Liometopum</i> bodies vs. <i>Platyusa</i> guts distances (derived from 19 <i>Liometopum</i> bodies, 12 <i>Liometopum</i> guts, and 5 <i>Platyusa</i> guts)		3.2206 x 10 ⁻⁸	W = 6367
S4F	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> heads	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 144 <i>Liometopum</i> guts vs. <i>Sceptobius</i> heads distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 12 <i>Sceptobius</i> heads)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	9.4879 x 10 ⁻⁴	W = 12885
	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> bodies	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 108 <i>Liometopum</i> guts vs. <i>Sceptobius</i> bodies distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 9 <i>Sceptobius</i> bodies)		0.0856	W = 10812
	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Sceptobius</i> guts	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 48 <i>Liometopum</i> guts vs. <i>Sceptobius</i> guts distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 4 <i>Sceptobius</i> guts)		0.1273	W = 4705

	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Platyusa</i> heads	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 24 <i>Liometopum</i> guts vs. <i>Platyusa</i> heads distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 2 <i>Platyusa</i> heads)		0.0476	W = 2006
	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> bodies, versus <i>Liometopum</i> guts and <i>Platyusa</i> bodies	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> bodies distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 5 <i>Platyusa</i> bodies)		2.5125 x 10 ⁻⁶	W = 3935
	Weighted UniFrac distances between <i>Liometopum</i> guts and <i>Liometopum</i> , versus <i>Liometopum</i> guts and <i>Platyusa</i> guts	228 <i>Liometopum</i> guts vs. <i>Liometopum</i> bodies distances, 60 <i>Liometopum</i> guts vs. <i>Platyusa</i> guts distances (derived from 12 <i>Liometopum</i> guts, 19 <i>Liometopum</i> bodies, and 5 <i>Platyusa</i> guts)		6.9978 x 10 ⁻⁶	W = 4129
Figure S5	Comparison	N number	Methods	P value	Statistical values
S5	Weighted UniFrac distances between <i>Liometopum</i> and <i>Sceptobius</i> , versus <i>Platyusa</i> and <i>Pella</i>	868 <i>Liometopum</i> vs. <i>Sceptobius</i> distances, 26 <i>Pella</i> vs. <i>Platyusa</i> distances (derived from 31 <i>Liometopum</i> samples, 28 <i>Sceptobius</i> samples, 2 <i>Pella</i> samples, and 13 <i>Platyusa</i> samples)	Wilcoxon test with the Benjamini-Hochberg method for controlling the false discovery rate	0.7534	W = 10876

Weighted UniFrac distances between <i>Platyusa</i> and <i>Pella</i> , versus <i>Lissagria</i> and <i>Sceptobius</i>	26 <i>Pella</i> vs. <i>Platyusa</i> distances, 56 <i>Lissagria</i> vs. <i>Sceptobius</i> distances (derived from 2 <i>Pella</i> samples, 13 <i>Platyusa</i> samples, 2 <i>Lissagria</i> samples, and 28 <i>Sceptobius</i> samples)	0.4194	W = 619
Weighted UniFrac distances between <i>Lissagria</i> and <i>Sceptobius</i> , versus <i>Platyusa</i> and <i>Sceptobius</i>	56 <i>Lissagria</i> vs. <i>Sceptobius</i> distances, 364 <i>Platyusa</i> vs. <i>Sceptobius</i> distances (derived from 2 <i>Lissagria</i> samples, 28 <i>Sceptobius</i> samples, and 13 <i>Platyusa</i> samples)	0.2518	W = 8730
Weighted UniFrac distances between <i>Platyusa</i> and <i>Sceptobius</i> , versus <i>Liometopum</i> and <i>Lissagria</i>	364 <i>Platyusa</i> vs. <i>Sceptobius</i> distances, 62 <i>Liometopum</i> vs. <i>Lissagria</i> distances (derived from 28 <i>Sceptobius</i> samples, 13 <i>Platyusa</i> samples, 31 <i>Liometopum</i> samples, and 2 <i>Lissagria</i> samples)	0.4745	W = 10522
Weighted UniFrac distances between <i>Liometopum</i> and <i>Lissagria</i> , versus <i>Liometopum</i> and <i>Platyusa</i>	62 <i>Liometopum</i> vs. <i>Lissagria</i> distances, 403 <i>Liometopum</i> vs. <i>Platyusa</i> distances (derived from 31 <i>Liometopum</i> samples, 2 <i>Lissagria</i> samples, and 13 <i>Platyusa</i> samples)	0.2957	W = 11067
Weighted UniFrac distances between <i>Liometopum</i> and <i>Platyusa</i> , versus <i>Lasius</i> and <i>Pella</i>	403 <i>Liometopum</i> vs. <i>Platyusa</i> distances, 10 <i>Lasius</i> vs. <i>Pella</i> distances (derived from 31 <i>Liometopum</i> samples, 13 <i>Platyusa</i> samples, 5 <i>Lasius</i> samples, and 2 <i>Pella</i> samples)	8.0199×10^{-5}	W = 391