

Supplementary Table S3A. Support for species and higher-order groupings from gene translations

		<i>An albitarsis</i>	<i>An antunesi</i>	<i>An argyritarsis</i>	<i>An arthuri</i>	<i>An benarrochi</i>	<i>An brazilensis</i>	<i>An deancorum</i>	<i>An dunhami</i>	<i>An evansae</i>	<i>An galcaoi</i>	<i>An goeldii</i>	<i>An konderi A and ss An ostaaldoi A</i>	<i>An lutzii B</i>	<i>An lutzii A</i>	<i>An lutzii ss</i>	<i>An marajoara</i>	<i>An nuneztocari</i>	<i>An ostaaldoi ss</i>	<i>An parvus</i>	<i>An pristinus</i>	<i>An rangeli</i>	<i>An rondoni</i>	<i>An strodei</i>	<i>An strodei CPform</i>	<i>An triannulatus</i>
<i>An kompi</i> included	mb 1	0.264	1.0	0.942	0.976	0.976	0.998	1.0	0.042	1.0	0.452	0.0	0.0	0.346	1.0	0.978	1.0	0.036	0.958	0.996	0.242	0.990	0.294	0.018	0.980	0.996
	mb 2	0.276	0.998	0.954	0.982	0.958	1.0	1.0	0.034	1.0	0.524	0.0	0.0	0.328	0.996	0.978	1.0	0.034	0.974	0.992	0.280	0.994	0.310	0.018	0.992	0.998
	p4 0	0.284	1.0	0.988	0.982	0.932	0.998	0.996	0.050	0.996	0.610	0.0	0.0	0.502	1.0	0.968	0.990	0.026	0.964	1.0	0.264	0.988	0.302	0.048	0.994	0.996
	p4 1	0.400	1.0	1.0	0.978	0.960	1.0	0.998	0.032	1.0	0.536	0.0	0.0	0.518	1.0	0.950	1.0	0.024	0.974	1.0	0.338	0.994	0.292	0.044	0.974	1.0
	p4 2	0.376	0.998	1.0	0.986	0.964	1.0	0.998	0.038	1.0	0.564	0.0	0.0	0.482	1.0	0.956	0.998	0.038	0.974	1.0	0.276	0.998	0.266	0.052	0.996	1.0
	p4 3	0.260	1.0	0.952	0.984	0.976	0.998	1.0	0.024	0.998	0.564	0.0	0.0	0.490	1.0	0.970	1.0	0.028	0.976	0.978	0.278	0.988	0.284	0.042	0.962	0.996
	p4 4	0.272	1.0	0.984	0.978	0.958	0.998	0.998	0.032	1.0	0.536	0.0	0.0	0.464	0.998	0.950	1.0	0.038	0.968	1.0	0.292	0.988	0.270	0.030	0.992	1.0
	p4 5	0.316	0.996	0.984	0.996	0.948	0.996	0.994	0.048	0.998	0.550	0.0	0.0	0.482	1.0	0.974	0.986	0.040	0.958	0.992	0.304	0.994	0.264	0.038	0.996	0.978
	p4 6	0.436	1.0	0.966	0.990	0.946	0.994	0.996	0.036	0.998	0.532	0.0	0.0	0.490	0.998	0.970	1.0	0.034	0.974	0.990	0.260	0.992	0.252	0.034	0.984	0.992
	p4 7	0.346	1.0	1.0	0.982	0.948	0.996	0.998	0.044	0.994	0.522	0.0	0.0	0.486	0.998	0.964	1.0	0.042	0.978	0.988	0.300	0.990	0.302	0.042	0.964	1.0
p4 8	0.314	1.0	0.942	0.986	0.966	0.996	1.0	0.024	0.998	0.554	0.0	0.0	0.490	1.0	0.970	1.0	0.050	0.984	0.992	0.302	0.984	0.298	0.042	0.974	0.986	
p4 9	0.340	1.0	1.0	0.982	0.960	1.0	0.998	0.030	1.0	0.544	0.0	0.0	0.496	0.998	0.968	1.0	0.050	0.968	0.996	0.332	0.988	0.276	0.042	0.980	1.0	
<i>An kompi</i> excluded	mb 1	0.236	1.0	1.0	0.984	0.940	1.0	1.0	0.044	1.0	0.584	0.0	0.0	0.336	0.996	0.964	1.0	0.064	0.976	1.0	0.292	0.988	0.308	0.016	0.932	0.996
	mb 2	0.236	1.0	1.0	0.968	0.968	1.0	1.0	0.020	1.0	0.508	0.0	0.0	0.352	1.0	0.972	1.0	0.036	0.960	1.0	0.212	1.0	0.296	0.032	0.844	1.0
	p4 0	0.416	1.0	1.0	0.983	0.844	0.998	0.995	0.022	1.0	0.201	0.0	0.0	0.088	1.0	0.865	1.0	0.013	0.867	1.0	0.132	0.949	0.091	0.010	0.861	1.0
	p4 1	0.086	1.0	1.0	0.998	0.849	0.998	0.999	0.021	1.0	0.235	0.0	0.0	0.110	0.999	0.859	1.0	0.021	0.899	1.0	0.146	0.980	0.120	0.014	0.964	1.0
	p4 2	0.206	0.998	1.0	0.983	0.826	0.999	0.988	0.012	1.0	0.281	0.0	0.0	0.102	0.996	0.892	1.0	0.010	0.934	1.0	0.119	0.979	0.123	0.010	0.900	1.0
	p4 3	0.173	1.0	1.0	0.976	0.849	0.997	1.0	0.011	1.0	0.194	0.0	0.0	0.089	0.996	0.889	1.0	0.018	0.845	1.0	0.101	0.963	0.097	0.008	0.619	0.996
p4 4	0.108	1.0	1.0	0.985	0.881	0.997	0.996	0.012	1.0	0.225	0.0	0.0	0.106	0.999	0.855	1.0	0.030	0.937	1.0	0.118	0.966	0.103	0.011	0.967	1.0	
No outgroup	mb 1	0.288	1.0	1.0	0.966	0.970	1.0	1.0	0.050	1.0	0.618	0.0	0.0	0.316	0.998	0.966	1.0	0.034	0.982	1.0	0.230	0.996	0.300	0.020	1.0	1.0
	mb 2	0.408	1.0	1.0	0.964	0.976	1.0	1.0	0.034	1.0	0.546	0.0	0.0	0.330	0.998	0.978	1.0	0.036	0.984	1.0	0.272	0.998	0.308	0.016	0.998	1.0
	p4 0	0.151	1.0	1.0	0.953	0.889	0.998	1.0	0.020	1.0	0.265	0.0	0.0	0.119	0.992	0.862	1.0	0.019	0.962	1.0	0.124	0.974	0.083	0.022	0.975	1.0
	p4 1	0.236	1.0	1.0	0.986	0.867	1.0	0.999	0.021	1.0	0.297	0.0	0.0	0.119	0.995	0.835	1.0	0.015	0.961	1.0	0.150	0.980	0.133	0.019	0.988	1.0
	p4 2	0.305	1.0	1.0	0.990	0.901	1.0	1.0	0.017	1.0	0.243	0.0	0.0	0.109	0.995	0.850	1.0	0.016	0.978	1.0	0.146	0.961	0.111	0.017	0.988	1.0
	p4 3	0.212	1.0	1.0	0.989	0.900	0.999	1.0	0.015	1.0	0.271	0.0	0.0	0.106	1.0	0.846	1.0	0.019	0.958	1.0	0.121	0.944	0.122	0.018	0.992	1.0
p4 4	0.167	0.999	1.0	0.988	0.876	1.0	1.0	0.013	1.0	0.239	0.0	0.0	0.112	0.998	0.868	1.0	0.029	0.967	1.0	0.126	0.985	0.126	0.012	0.985	1.0	

Supplementary Table S3B. Support for species and higher-order groupings from gene translations

		<i>An konderi</i> A + ss + <i>An oswaldoi</i> A + <i>An konderi</i> B	<i>An konderi</i> A + ss + <i>oswaldoi</i> A + <i>konderi</i> B + <i>oswaldoi</i> ss	<i>An konderi</i> A and ss + <i>oswaldoi</i> A + <i>konderi</i> B + <i>oswaldoi</i> ss + <i>evansae</i>	<i>An galtaoi</i> + <i>rangeli</i>	<i>An konderi</i> A + ss + <i>oswaldoi</i> A + <i>oswaldoi</i> ss + <i>konderi</i> B + <i>evansae</i> + <i>galtaoi</i> + <i>rangeli</i>	Nunestovani Complex (<i>nunestovari</i> + <i>goeldii</i>)	Nunestovani Complex + <i>dunhami</i>	Oswaldoi Subgroup	<i>An albertoi</i> + <i>strodei</i>	<i>An albertoi</i> + <i>strodei</i> + <i>arthuri</i>	<i>An albertoi</i> + <i>strodei</i> + <i>arthuri</i> + <i>rondoni</i>	<i>An albertoi</i> + <i>strodei</i> + <i>arthuri</i> + <i>rondoni</i> + CPForm	<i>An albertoi</i> + <i>strodei</i> + <i>arthuri</i> + <i>rondoni</i> + CPForm + <i>benarrochi</i>	Strodei Subgroup	Oswaldoi Series	Oswaldoi Series (no <i>An benarrochi</i>)	Oswaldoi Group	Oswaldoi Group (no <i>An benarrochi</i>)	Oswaldoi Group with <i>An braziliensis</i>	Oswaldoi Group without <i>An benarrochi</i> , with <i>An braziliensis</i>	
<i>An kompi</i> included	mb 1	0.002	0.006	0.004	0.0	0.0	0.0	0.008	0.0	0.068	0.566	0.996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	mb 2	0.004	0.006	0.006	0.004	0.0	0.0	0.020	0.0	0.062	0.612	1.0	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.004	0.0	
	p4 0	0.006	0.006	0.004	0.0	0.0	0.0	0.018	0.0	0.054	0.576	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	p4 1	0.006	0.0	0.002	0.0	0.0	0.0	0.028	0.0	0.062	0.578	0.984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	p4 2	0.006	0.008	0.018	0.0	0.0	0.002	0.044	0.0	0.112	0.614	0.994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.002	0.0	
	p4 3	0.006	0.006	0.010	0.0	0.0	0.002	0.010	0.0	0.084	0.586	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	p4 4	0.0	0.004	0.004	0.0	0.0	0.0	0.014	0.0	0.066	0.558	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	p4 5	0.004	0.010	0.014	0.0	0.0	0.0	0.022	0.0	0.092	0.624	0.986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.004	0.0	
	p4 6	0.008	0.002	0.012	0.0	0.0	0.0	0.060	0.0	0.092	0.550	0.990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.010	0.0	
	p4 7	0.004	0.006	0.014	0.0	0.0	0.0	0.008	0.0	0.088	0.562	0.998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
p4 8	0.010	0.002	0.012	0.0	0.0	0.0	0.014	0.0	0.106	0.580	0.996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
p4 9	0.006	0.002	0.004	0.0	0.0	0.0	0.022	0.0	0.068	0.608	0.994	0.0	0.0	0.0	0.0	0.0	0.004	0.0	0.006	0.0		
<i>An kompi</i> excluded	mb 1	0.004	0.0	0.008	0.0	0.0	0.0	0.004	0.0	0.056	0.604	0.996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	mb 2	0.008	0.0	0.016	0.0	0.0	0.0	0.016	0.0	0.080	0.548	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	p4 0	0.001	0.0	0.003	0.0	0.0	0.0	0.057	0.0	0.026	0.516	0.987	0.0	0.0	0.0	0.0	0.001	0.0	0.007	0.0		
	p4 1	0.007	0.002	0.004	0.0	0.0	0.0	0.001	0.0	0.033	0.470	0.994	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	p4 2	0.001	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.033	0.425	1.0	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.004	0.0	
	p4 3	0.005	0.002	0.0	0.0	0.0	0.0	0.002	0.0	0.034	0.526	0.997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
p4 4	0.0	0.0	0.0	0.0	0.0	0.0	0.002	0.0	0.035	0.451	0.942	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
No outgroup	mb 1	0.002	0.002	0.004	0.0	0.0	0.0	0.038	0.0	0.068	0.614	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.006	0.0	
	mb 2	0.0	0.006	0.006	0.0	0.0	0.0	0.096	0.0	0.054	0.570	1.0	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.002	0.0	
	p4 0	0.001	0.001	0.003	0.0	0.0	0.0	0.004	0.0	0.033	0.473	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	
	p4 1	0.003	0.0	0.006	0.0	0.0	0.0	0.006	0.0	0.035	0.447	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	
	p4 2	0.001	0.004	0.0	0.0	0.0	0.0	0.021	0.0	0.029	0.535	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	
	p4 3	0.002	0.0	0.002	0.0	0.0	0.0	0.020	0.0	0.039	0.527	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	
p4 4	0.001	0.002	0.007	0.0	0.0	0.0	0.006	0.0	0.038	0.481	0.999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Supplementary Table S3C. Support for species and higher-order groupings from gene translations

		<i>An triannulatus + darlingi</i>	<i>An triannulatus + rangeli</i>	<i>An triannulatus + argyritarsis</i>	<i>An triannulatus + lanei</i>	<i>An argyritarsis + darlingi</i>	<i>An argyritarsis + lanei + darlingi</i>	Argyritarsis Series	Argyritarsis Series + <i>An triannulatus</i>	Albitarsis Group/Complex	Albitarsis Series	Argyritarsis Section	Argyritarsis Section + <i>An triannulatus</i>	<i>An antunesi + lutzii B</i>	<i>An lutzii ss + lutzii A</i>	Myzorhynchella Crown (no <i>An parvus</i>)	Myzorhynchella Section	outgroup
<i>An kompi</i> included	mb 1	0.002	0.284	0.0	0.014	0.416	0.0	0.0	0.0	0.760	0.002	0.0	0.0	1.0	0.062	0.958	0.874	0.354
	mb 2	0.0	0.276	0.0	0.004	0.570	0.002	0.002	0.0	0.690	0.0	0.0	0.0	1.0	0.050	0.968	0.462	0.038
	p4 0	0.0	0.368	0.0	0.018	0.742	0.0	0.0	0.0	0.680	0.0	0.0	0.0	1.0	0.058	0.936	0.966	0.784
	p4 1	0.0	0.396	0.0	0.012	0.852	0.0	0.0	0.0	0.840	0.012	0.0	0.0	0.998	0.054	0.934	0.922	0.988
	p4 2	0.0	0.398	0.0	0.038	0.950	0.004	0.004	0.0	0.608	0.002	0.0	0.0	0.998	0.066	0.952	0.948	0.974
	p4 3	0.006	0.270	0.0	0.042	0.658	0.0	0.0	0.0	0.698	0.0	0.0	0.0	1.0	0.062	0.982	0.352	0.0
	p4 4	0.0	0.320	0.0	0.046	0.876	0.0	0.0	0.0	0.640	0.0	0.0	0.0	0.998	0.040	0.936	0.946	0.882
	p4 5	0.002	0.410	0.0	0.024	0.698	0.0	0.0	0.0	0.724	0.0	0.0	0.0	1.0	0.052	0.974	0.768	0.484
	p4 6	0.002	0.406	0.0	0.024	0.582	0.002	0.002	0.0	0.842	0.002	0.0	0.0	0.996	0.054	0.958	0.748	0.458
	p4 7	0.0	0.388	0.0	0.026	0.972	0.0	0.0	0.0	0.770	0.0	0.0	0.0	0.996	0.036	0.932	0.600	0.588
p4 8	0.002	0.382	0.0	0.024	0.386	0.0	0.0	0.0	0.770	0.0	0.0	0.0	0.996	0.062	0.972	0.634	0.038	
p4 9	0.0	0.406	0.0	0.024	0.876	0.004	0.004	0.0	0.822	0.0	0.0	0.0	0.998	0.056	0.962	0.896	0.944	
<i>An kompi</i> excluded	mb 1	0.0	0.372	0.0	0.004	0.980	0.0	0.0	0.0	0.772	0.0	0.0	0.0	1.0	0.040	0.916	0.940	0.840
	mb 2	0.0	0.308	0.0	0.004	0.976	0.0	0.0	0.0	0.864	0.0	0.0	0.0	1.0	0.044	0.956	0.948	0.632
	p4 0	0.0	0.449	0.0	0.011	0.853	0.0	0.0	0.0	0.821	0.001	0.0	0.0	1.0	0.029	0.819	0.936	1.0
	p4 1	0.001	0.261	0.0	0.029	0.916	0.001	0.001	0.0	0.538	0.0	0.0	0.0	0.999	0.021	0.839	0.950	1.0
	p4 2	0.001	0.274	0.0	0.032	0.939	0.0	0.0	0.0	0.697	0.0	0.0	0.0	0.999	0.027	0.876	0.953	1.0
	p4 3	0.001	0.506	0.0	0.001	0.828	0.0	0.0	0.0	0.988	0.0	0.0	0.0	1.0	0.021	0.838	0.766	0.0
p4 4	0.0	0.313	0.0	0.010	0.935	0.001	0.001	0.0	0.663	0.0	0.0	0.0	1.0	0.034	0.840	0.956	1.0	
No outgroup	mb 1	0.0	0.388	0.0	0.002	0.994	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.028	0.932	0.972	na
	mb 2	0.0	0.454	0.0	0.006	0.990	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.028	0.944	0.960	na
	p4 0	0.0	0.392	0.0	0.023	0.953	0.002	0.002	0.0	1.0	0.0	0.0	0.0	1.0	0.019	0.814	0.940	na
	p4 1	0.0	0.438	0.0	0.015	0.970	0.002	0.002	0.0	1.0	0.0	0.0	0.0	1.0	0.018	0.785	0.937	na
	p4 2	0.0	0.506	0.0	0.007	0.948	0.0	0.0	0.0	1.0	0.001	0.0	0.0	1.0	0.028	0.788	0.956	na
	p4 3	0.0	0.491	0.0	0.018	0.934	0.001	0.001	0.001	1.0	0.0	0.0	0.0	1.0	0.023	0.765	0.942	na
	p4 4	0.0	0.389	0.0	0.020	0.952	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.999	0.027	0.836	0.957	na