CORRECTION

Correction to: Morphological and taxonomic demarcation of *Brachionus asplanchnoidis* Charin within the *Brachionus plicatilis* cryptic species complex (Rotifera, Monogononta)

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The authors of the original publication recognized that, for three of the clones (MAN-L5, LFL2, KOR), the data of two of the raw morphometric measurements contained in Supplementary Material 2 of the article were flipped (the distance between the anterior tips of the 3rd dorsal spines ‘b’ and the width of the lorica ‘c’). The corrected Supplementary material 2 is

The original article can be found online at <https://doi.org/10.1007/s10750-016-2924-2>.

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provided here. As a consequence, the principal components analysis (PCA) and discriminant analysis (DA) were repeated, and the corrected version of Fig. 3, Tables 4, 5, 6 and 7 are also provided here.

PCA explains a similar amount of the observed variation (PC1 71.14%, PC2 8.89%) and still clearly separates the clones of *B. asplanchnoidis* from the rest of the members of the L clade, revealing however a great degree of morphometric variability within the *B. asplanchnoidis* members (Fig. 3A). DA performed on the phylogenetically identified species also clearly separates *B. asplanchnoidis* from the rest of the species (Fig. 3B). Table 4 shows the results of the discriminant analysis where the classification factor was the four species of the L clade. Classification Functions 1 and 2 accounted for a similar amount of the total variance, 78.3% and 16.2%, respectively,

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Fig. 3 Analysis of the association between species delimitation and morphometry. **A** Representation of sample score averages of each of the studied clones along the first two axes of the principal components analysis (PC1 explained 71.14% and PC2 explained 8.89% of the recorded variation) performed on the morphometric data. Error bars represent variation between individuals of the same clone (twice the standard error of the mean). **B** Scatterplot showing the discrimination of species groups based on the canonical discriminant functions of the discriminant analysis performed on all measured individuals.

revealing mainly two groups (Wilks' Lambda = 0.454, $\chi^2 = 158.61$, $df = 14$, $P < 0.001$) (Fig. 3B). The variables weighting the most in the classification function 1 were the width of the medial sinus of the anteroventral margin (r) and the width of the lorica (c) (see correlation coefficient in Table 4). Cross-validation of the individuals' classification based on the classification functions (Table 5) of the discriminant analysis correctly identified 96.6% *B. asplanchnoidis* individuals. Still, for the two groups, i.e., one group *B. asplanchnoidis* clones and the other group *B.*

Error bars represent variation between individuals of the same clone (twice the standard error of the mean). **C** Distribution of the number of individuals of *Brachionus asplanchnoidis* and the rest of the L group members along the discriminant axis obtained from morphometric data. The bars shown under the x axis do not represent negative values. **D** Box-and-whisker plot of r (width of the medial sinus of the anteroventral margin) for the four species ASP, *Brachionus asplanchnoidis*; PLI, *B. plicatilis*; MAN, *B. manjavacas*; NEV, *B. 'Nevada'*

plicatilis, *B. manjavacas*, and *B. 'Nevada'* clones, identified in the discriminant analysis, some overlap was recorded of the scores of the discriminant functions (Fig. 3C). All measurements (Supplementary Material Table 2) covered a wide range of values within each species and exhibited great overlap (Table 6), while most of them differed significantly between species (Table 7). From the morphological analysis, the differences between *B. asplanchnoidis* and the rest of the representatives of the L clade concern the anteroventral margin which is more

Table 4 Stepwise discriminant analysis of the *Brachionus* body measurements

Measurement	Function 1		Function 2	
	Coefficient	Correlation	Coefficient	Correlation
<i>a</i>	– 0.505	0.050	– 2.321	0.184
<i>b</i>	0.110	0.084	0.901	0.316
<i>c</i>	1.687	0.047	1.761	0.243
<i>g</i>	0.146	0.059	1.119	0.395
<i>l</i>	– 0.777	– 0.064	0.080	0.141
<i>o</i>	– 0.242	0.039	0.319	0.316
<i>p</i>	– 0.855	– 0.170	– 1.257	– 0.037
<i>r</i>	1.066	0.697	– 0.471	– 0.240
Eigenvalue	3.631		0.749	
% Variance	78.3		16.2	

Values of the first two canonical functions are shown. Coefficient: standardized coefficient for the canonical discriminant function. Correlation: pooled within group correlation coefficient between the body measurement and the canonical discriminant function

Table 5 Classification functions of the stepwise discriminant analysis

Measurement	ASP	PLI	MAN	NEV
<i>a</i>	357.54	369.27	437.82	348.83
<i>b</i>	1792.56	1790.11	1742.75	1817.13
<i>c</i>	231.63	157.35	123.34	188.62
<i>g</i>	– 153.29	– 153.49	– 181.89	– 156.48
<i>l</i>	– 446.51	– 413.53	– 428.56	– 414.99
<i>o</i>	– 836.68	– 817.20	– 829.73	– 867.98
<i>p</i>	– 185.40	– 149.70	– 120.05	– 143.86
<i>r</i>	56.69	17.98	41.20	37.33
Constant	– 1449.36	– 1383.15	– 1377.82	– 1411.74

ASP, *Brachionus asplanchnoidis*; PLI, *B. plicatilis*; MAN, *B. manjavacas*; NEV, *B. Nevada*

pronounced in the case of *B. plicatilis* (Fig. 3D). In *B. asplanchnoidis*, the medial sinus is much deeper and wider compared to *B. plicatilis* (*r* range 20–51 μm and 5–23 μm , respectively).

The main conclusions of this study remain the same. *Brachionus asplanchnoidis* differs compared to the rest of the representatives of the L clade of the *B. plicatilis* complex based on the medial sinus of the anteroventral margin, which is more pronounced in the

case of, e.g., *B. plicatilis* (Fig. 3D). In *B. asplanchnoidis*, the medial sinus is much deeper and wider (*r* range 20–51 μm) compared to *B. plicatilis* (*r* range 5–23 μm). Furthermore, the structured orange peel-like surface is more closely spaced and less pronounced in *B. asplanchnoidis* compared to *B. plicatilis* (Fig. 5B, C). Nevertheless, as already pointed out by Fontaneto et al. (2007), the observed morphological differences are greater among the size clades of the *B.*

Table 6 Measurements (in μm) (range, mean, St. Error) of the dimensions of the individuals that have been used for the morphometric analysis

Measurement	<i>B. asplanchnoidis</i>				<i>B. plicatilis</i>			
	Min	Max	Mean	SE	Min	Max	Mean	SE
<i>a</i>	185	510	295.12	8.14	219	374	283.63	6.38
<i>b</i>	82	166	126.12	1.85	98	143	122.36	1.72
<i>c</i>	138	342	206.58	4.82	158	282	203.62	5.49
<i>e</i>	12	46	26.64	0.75	21	34	27.33	0.42
<i>g</i>	6	28	14.42	0.45	10	19	13.74	0.31
<i>j</i>	17	51	31.11	0.82	24	37	30.35	0.51
<i>i</i>	89	175	130.88	2.12	102	159	132.44	2.13
<i>k</i>	10	31	19.41	0.43	16	28	21.48	0.43
<i>l</i>	12	42	23.86	0.67	17	33	25.42	0.59
<i>m</i>	53	119	80.02	1.31	55	90	76.79	1.22
<i>n</i>	13	38	24.41	0.48	17	34	25.17	0.61
<i>o</i>	21	57	34.17	0.70	25	44	34.29	0.71
<i>p</i>	17	51	33.37	0.70	29	47	37.66	0.73
<i>q</i>	24	75	34.75	0.68	21	40	30.06	0.64
<i>r</i>	20	51	31.12	0.64	5	23	12.47	0.86
Measurement	<i>B. manjavacas</i>				<i>B. 'Nevada'</i>			
	Min	Max	Mean	SE	Min	Max	Mean	SE
<i>a</i>	216	288	256.28	3.90	192	266	241.27	5.96
<i>b</i>	91	122	109.37	1.75	99	132	116.83	2.31
<i>c</i>	146	202	177.67	2.62	139	200	175.08	4.28
<i>e</i>	16	29	21.74	0.52	17	31	23.66	0.87
<i>g</i>	7	12	10.04	0.28	9	18	12.83	0.53
<i>j</i>	20	32	25.56	0.61	20	33	26.24	0.73
<i>i</i>	99	138	125.09	1.91	114	140	127.19	2.35
<i>k</i>	13	21	17.64	0.45	16	24	20.20	0.63
<i>l</i>	13	26	22.42	0.62	17	27	23.10	0.79
<i>m</i>	56	82	68.17	1.41	57	92	70.59	2.18
<i>n</i>	15	28	23.90	0.57	20	31	24.86	0.67
<i>o</i>	25	35	29.38	0.63	24	36	28.02	0.80
<i>p</i>	26	41	36.37	0.66	32	43	36.62	0.80
<i>q</i>	23	34	28.85	0.59	24	32	29.06	0.57
<i>r</i>	13	28	19.69	0.93	7	28	20.25	1.28

Table 7 Results of ANOVA and post hoc Fisher LSD test for differences in lorica measurements identified as discriminating traits between the four species of *Brachionus plicatilis* cryptic species complex

Measurement	Fisher LSD test				ANOVA		
	ASP	MAN	NEV	PLI	df	F	P
<i>a</i>	A	B	B	A	3	13.31	< 0.001
<i>b</i>	A	B	C	A	3	16.59	< 0.001
<i>c</i>	A	B	B	A	3	13.18	< 0.001
<i>e</i>	A	B	C	D	3	22.04	< 0.001
<i>g</i>	A	B	C	A C	3	26.56	< 0.001
<i>j</i>	A	B	B	A	3	19.34	< 0.001
<i>i</i>	A	A B	A	A C	3	2.85	< 0.001
<i>k</i>	A	B	C	D	3	20.65	< 0.001
<i>l</i>	A	A	A	D	3	8.06	< 0.001
<i>m</i>	A	B	B	D	3	19.07	< 0.001
<i>n</i>	A	A	A	A	3	1.73	< 0.001
<i>o</i>	A	B	B	A	3	27.81	< 0.001
<i>p</i>	A	B	B	B	3	18.11	< 0.001
<i>q</i>	A	B	B	B	3	26.01	< 0.001
<i>r</i>	A	B	B	D	3	182.71	< 0.001

Species with same letters did not differ significantly. ASP, *Brachionus asplanchnoidis*; PLI, *B. plicatilis*; MAN, *B. manjavacas*; NEV, *B. 'Nevada'*

plicatilis cryptic species complex than within each size group.

species of the *Brachionus plicatilis* species complex. Hydrobiologia 583: 297–307.

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