Achnanthes Bory *sensu stricto* (Bacillariophyta) from Terrestrial Habitats of Rio de Janeiro (Brazil), with Description of *Achnanthes pseudoinflata* sp. nov.

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Table S1. Dimensions, number of striae and areolae for *Achnanthes pseudoinflata sp. nov*. R-valve – raphe valve, P-valve – rapheless valve.

Length (μm)	Width (μm)	Striae density (in 10 μm)	Areolae density (in 10 μm)	valve
22.9	8.5	16	19	P
19.9	7.8	16	21	R
20.6	8.0	16	19	P
36.6	8.4	15	18	R
32.8	8.1	17	20	R
37.3	8.2	15	18	R
20.6	7.9	16	18	P
34.9	9.5	15	22	R
26.2	7.8	16	21	P
18.2	7.7	16	18	P
36.9	9.3	16	19	P
33.9	8.3	17	20	R
36.4	8.5	15	19	P
31.8	8.4	16	18	R
36.2	8.1	17	21	P
34.4	8.2	15	18	R
15.1	9.5	16	21	P
38.5	7.4	16	18	R
33.1	6.9	17	18	P
28.9	7.0	15	19	R
19.5	7.8	16	20	P
17.3	8.2	15	21	P
20.6	8.2	16	20	P
36.6	9.6	15	19	R
32.8	8.1	17	18	R
22.8	7.6	17	20	R
30.1	7.3	16	19	P
19.9	7.1	17	18	R
17.3	9.0	16	21	P
27.0	7.7	16	20	P
34.1	7.2	16	19	R
31.8	8.4	16	18	P
36.2	7.3	16	18	R

34.4	8.1	16	22	R
28.6	7.5	15	18	P
27.1	7.8	16	21	R
29.4	7.7	16	20	P
30.2	9.3	17	18	R
26.2	8.3	15	19	R
24.9	8.5	15	20	P
32.3	7.2	16	18	R
17.3	7.4	16	18	R
27.0	7.5	16	21	R
34.1	8.0	15	18	P
31.8	7.2	16	19	R
36.2	8.1	15	18	P
16.9	7.4	16	20	P
22.6	7.9	17	19	R
25.6	7.5	16	20	R
31.8	7.8	16	21	R
36.2	8.4	15	20	R
34.4	8.3	16	18	R
20.7	8.3	17	18	R
22.8	8.2	15	19	R
28.4	8.5	16	21	P
23.1	7.8	17	22	R
18.2	7.9	16	20	P
32.4	8.3	16	19	R
33.7	8.1	15	18	R
29.1	8.2	15	20	P
36.3	9.5	17	19	P
26.7	8.5	16	21	P
22.5	7.8	16	18	R
30.6	8.0	15	20	P
33.1	8.4	16	19	P
24.7	8.1	16	20	R
24.0	8.2	16	21	P
35.1	7.7	16	21	P
25.4	7.1	16	19	P
17.9	8.8	15	21	P
28.7	8.3	15	18	R
27.6	8.1	16	19	P
34.9	8.3	15	18	P
26.2	8.4	16	22	P
29.3	8.4	16	18	P
27.1	8.1	15	20	P
35.7	9.0	16	18	P
33.9	7.5	15	19	R
32.2	7.7	15	18	R
28.7	8.7	16	22	P
25.1	8.5	17	21	R
19.3	7.3	16	18	P
29.8	8.5	15	18	R

22.4	8.3	15	18	P
36.1	8.8	16	20	R
23.8	7.2	16	19	R
29.5	8.6	16	18	P
30.2	8.2	16	21	P
31.8	8.5	15	18	R
27.6	8.1	17	20	R
16.8	7.9	15	18	R
25.4	8.3	15	19	R
28.5	7.2	16	20	P
26.3	7.4	16	19	R
32.9	7.4	16	18	P
36.1	7.6	16	18	P
18.9	8.1	16	19	P
16.3	8.4	15	22	R
30.0	8.1	15	20	P
26.1	7.9	16	21	R
20.7	8.2	15	19	R
22.8	7.5	16	21	P
28.4	8.3	15	18	P
31.7	8.3	15	22	R
33.3	7.9	16	22	P
36.4	7.7	15	18	P
28.1	8.0	16	18	P
23.7	8.4	15	19	P
32.9	8.0	16	21	R
26.1	8.1	15	19	P
38.2	8.4	16	18	P
19.7	7.3	17	20	P
29.9	7.5	16	21	P
35.6	7.9	16	18	P
28.9	8.3	15	21	P
27.4	8.2	15	19	R
32.8	8.2	16	20	R
37.1	7.7	16	20	R
28.7	8.7	16	21	R
26.5	8.1	15	18	P
28.9	8.4	16	18	P
25.3	7.1	17	21	R
31.4	7.0	15	18	R
34.2	7.9	16	19	R
26.5	8.3	16	22	R
25.7	8.1	15	18	P
16.3	8.0	16	21	R
32.7	7.7	17	20	P
28.5	8.3	16	18	P
30.4	8.7	15	19	P
32.1	8.2	15	18	P
36.9	7.6	17	18	R
25.6	8.0	16	20	P

27.3	8.4	15	19	R
38.3	8.1	16	21	R
32.5	7.3	16	20	R
23.5	8.0	15	18	P
22.4	8.2	15	21	R
29.7	7.5	16	18	P
19.8	8.3	15	19	P
28.8	7.9	15	21	P
31.8	8.3	16	18	R
29.1	8.1	15	19	P
33.2	7.2	16	21	R
29.5	7.9	15	18	P
28.6	7.8	16	18	P
27.5	9.2	16	18	P
22.8	8.3	15	20	R
28.4	8.2	16	22	R
23.1	8.6	15	20	R
18.2	8.1	16	18	P
38.1	7.5	16	19	R
34.2	7.9	17	20	P
16.8	7.9	16	19	P
25.7	7.0	16	18	R
16.3	8.2	17	18	R
32.7	8.1	16	20	P
23.0	7.3	17	19	R
26.8	7.7	16	21	P
32.4	8.2	16	18	P
35.1	8.5	15	20	P
27.6	7.1	15	21	R
24.1	8.2	15	18	R
30.2	7.5	15	19	P
32.9	8.3	16	18	R
28.6	9.1	17	21	R
34.9	8.1	15	20	P
26.2	8.2	16	18	P
30.0	7.3	15	21	R
28.4	8.1	15	18	P
32.8	7.9	15	21	R
26.7	8.4	16	19	P
28.3	7.9	15	18	R
16.7	8.3	16	20	P
27.1	8.1	15	21	P
38.3	7.3	16	20	P
27.5	8.1	16	18	R
32.4	8.0	16	20	R
36.4	8.4	16	21	P
29.3	8.3	15	22	R
19.8	7.6	15	18	P
32.1	7.3	16	18	R
26.5	7.5	15	19	R

34.2	8.2	16	21	P
28.6	8.8	15	19	R
33.5	8.6	15	18	R
37.9	9.1	15	20	P
34.2	7.9	16	21	P
33.1	8.3	16	18	P
17.2	8.1	16	19	R
25.7	8.2	17	22	P
16.3	7.5	15	20	P
32.7	8.3	15	18	R
29.3	7.8	16	18	R
26.8	8.1	15	21	R
33.2	7.9	16	20	R
25.9	8.6	16	18	P
32.1	7.4	15	19	R
34.2	8.6	15	20	R
38.4	7.4	15	18	P
26.5	7.7	15	19	P
28.9	9.3	16	21	R
20.7	8.8	16	18	R
22.0	8.3	16	19	P
17.4	8.5	16	20	R
23.7	8.6	15	22	R
32.9	8.3	16	18	P
26.1	7.0	15	18	P
38.2	8.6	16	19	P
32.1	8.2	17	21	P
35.4	7.5	15	19	R
29.7	7.4	17	18	P
28.6	8.2	16	20	R
25.5	7.5	15	21	P
23.8	8.3	16	18	P
32.7	8.0	16	19	R
33.1	9.2	15	20	P
36.4	8.0	16	21	R
25.6	7.4	16	18	R
27.7	7.6	15	20	P
18.3	7.9	16	18	P
37.1	8.3	15	19	P
21.8	8.1	16	20	R
32.6	9.1	15	22	R
29.6	8.2	16	20	P
34.7	7.9	15	21	P
17.3	7.1	15	18	P
25.0	6.9	15	19	R
33.9	8.3	16	20	P
36.4	8.5	16	20	P
31.8	8.2	16	18	R
36.2	7.5	16	21	R
34.4	8.3	17	21	R

20.6	7.9	16	18	P
32.8	8.3	15	19	P
19.9	8.8	16	20	P
37.4	8.0	16	18	P
29.4	9.3	15	19	R
18.5	8.1	16	21	P
28.3	8.3	15	18	R
31.2	8.2	15	19	R
32.8	7.4	15	21	P
27.5	7.9	15	18	R
29.4	8.3	16	18	R
32.9	8.1	16	22	P
23.7	7.9	15	19	P
28.5	8.2	16	18	P
33.7	8.3	16	21	P
23.0	7.7	15	20	P
28.6	7.6	16	18	R
32.5	8.1	15	18	R
36.2	9.1	16	21	P
26.2	7.0	15	18	R
18.1	8.6	17	20	R
28.5	8.2	15	18	P
21.6	7.5	15	19	R
32.4	7.6	16	21	P
33.6	8.0	16	18	R
25.8	7.3	16	21	R
29.6	8.3	16	18	P
31.6	8.3	16	19	P
25.7	8.1	16	18	R
30.8	7.9	15	22	P
36.2	9.3	15	18	R
22.9	7.8	15	19	P
18.2	8.2	16	19	P
37.3	8.4	15	18	R
23.7	8.9	15	20	R
19.3	8.2	17	22	R
24.5	7.5	16	21	P
34.2	8.3	15	18	R
32.1	7.6	16	21	P
28.0	8.5	15	18	R
33.9	7.0	16	19	R
28.7	8.1	15	21	P
25.6	8.4	16	18	P
27.5	7.9	15	21	P
20.8	8.5	15	22	R
19.7	7.9	15	19	R
21.6	8.3	16	18	R
32.8	8.1	16	20	R
34.9	9.2	16	18	P
17.3	6.9	16	18	R

19.6	8.2	17	22	R
35.1	8.2	16	18	P
32.7	7.6	15	18	P
25.8	8.1	16	21	R
21.4	9.1	17	20	R
35.2	7.3	15	21	P
29.4	9.4	16	19	R
28.6	8.0	16	21	R
18.6	8.9	15	18	P
22.8	8.7	15	18	P
27.4	8.3	16	21	P
31.2	7.8	15	20	P
34.9	7.9	16	19	R
19.7	7.2	15	22	P
27.6	8.6	16	18	P
24.3	8.3	16	21	R

Table S2. Dimensions, number of striae and areolae for *Achnanthes coarctata*. R-valve – raphe valve, P-valve – rapheless valve.

Length (μm)	**Width (μm)**	**Striae density (in 10 μm)**	**Areolae density (in 10 μm)**	**valve**
36.4	8.5	11	14	R
31.1	9.0	11	15	R

Table S3. Dimensions, number of striae and areolae for *Achnanthes mauiensis*. R-valve – raphe valve, P-valve – rapheless valve.

Length (μm)	**Width (μm)**	**Striae density (in 10 μm)**	**Areolae density (in 10 μm)**	**valve**
26.2	6.3	15	21	P
24.5	6.3	15	21	P
29.1	6.4	16	21	R
32.4	6.3	15	21	P
27.4	6.4	16	21	R
24.0	6.4	15	21	P
25.6	6.3	15	21	R
27.6	6.3	16	21	P
25.8	6.3	16	21	R
24.1	6.4	16	21	P
27.3	6.3	16	21	R

26.3	6.4	15	21	R
23.2	6.4	15	21	R
24.8	6.3	16	21	P
27.9	6.4	15	21	R
26.4	6.3	16	21	P
25.3	6.3	15	21	P
26.2	6.3	16	21	P
24.7	6.4	15	21	P
27.3	6.3	16	21	P
25.9	6.4	16	21	P

Table S4. Dimensions, number of striae and areolae for *Achnanthes inflata* var. *gibba*. R-valve – raphe valve, P-valve – rapheless valve.

Length (μm)	**Width (μm)**	**Striae density (in 10 μm)**	**Areolae density (in 10 μm)**	**valve**
24.3	12.3	12	18	R
32.5	11.1	13	19	R
27.3	10.9	12	18	R
28.1	11.6	12	17	P
24.7	11.3	13	18	R
30.4	12.0	13	17	P
27.8	12.7	13	16	P
33.3	10.8	13	18	R
41.0	11.9	13	19	R
37.5	11.8	12	19	R
32.4	12.0	13	17	P
26.9	11.3	12	19	R
49.5	11.4	12	17	P
40.2	10.5	13	18	P
34.5	11.0	13	18	R
32.9	11.4	12	16	P
38.1	11.2	13	18	R
37.5	10.6	13	19	R
41.7	10.0	13	19	R
27.3	12.3	13	17	P
31.7	11.3	13	17	P
34.5	10.5	12	18	R
29.8	11.7	13	18	P
32.6	11.4	13	19	R
38.7	11.9	12	16	P
32.2	10.8	12	18	R
28.1	11.2	13	17	P
36.3	11.2	13	18	P
25.9	12.1	13	17	P
29.7	10.6	13	17	P

30.7	11.3	13	19	R
27.1	11.8	13	19	R
34.1	10.7	12	16	P
42.5	11.9	12	18	R
38.6	11.3	13	17	P
32.5	11.5	13	19	R
34.8	11.3	12	18	P
25.3	11.8	13	18	P
26.6	12.0	12	17	P
26.7	11.4	13	19	R
45.3	10.8	12	18	R
27.4	11.4	13	19	R
30.3	12.0	13	16	P
28.7	11.7	12	18	R
32.3	10.9	12	18	P
32.6	11.0	13	19	R
43.1	11.3	12	18	R
36.5	11.2	13	17	P
31.1	12.1	12	18	P
39.7	11.9	13	17	P

Table S5. Dimensions, number of striae and areolae for *Achnanthes inflata* originated from Grunow's original material. R-valve – raphe valve, P-valve – rapheless valve.

Length (μm)	**Width (μm)**	**Striae density (in 10 μm)**	**Areolae density (in 10 μm)**	**valve**
62.4	17.7	13	10	P
60.2	14.6	9	10	P
52.3	15.4	13	11	P
49.6	14.2	9	10	P
44.3	14.9	12	10	P
40.5	13.6	11	11	P
34.0	13.7	12	11	P
60.5	15.5	12	12	R
57.0	15.2	11	12	R
53.6	15.3	9	12	R
51.8	14.4	9	12	R
49.7	15.1	11	12	R
42.2	13.6	10	12	R
39.4	13.5	12	12	R
31.0	11.5	12	12	R