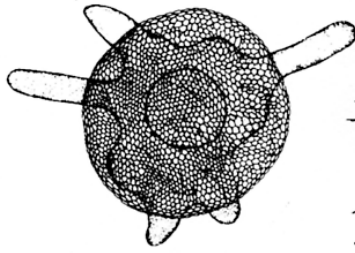


# Dichotomous Key for Protozoa

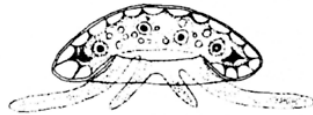
Start at number 1, comparing the observed protozoan to each of the characteristics stated per number in the key. Proceed according to the key until it terminates in the name of the protozoan.

<b>Characteristic</b>	<b>Go to Number</b>
1. White or colorless	2
Colored	8
2. Creeping (sliding) slowly or floating without apparent motion	3
Exhibits other motion	7
3. Spherically shaped with radiating "spines"	Actinosphaerium
Not spherical in shape	4
4. Shape remains constant	5
Shape changes	6
5. Possesses flattened test or shell without embedded or attached material; pale to brown in color	Arcella
Possesses dome-shaped test or shell with attached particles, usually of sand	Diffugia
6. Small; creeps using pseudopodia (false feet); single disc-shaped nucleus	Amoeba
Large; creeps using pseudopodia; many(100's) of small nuclei	Pelomyxa
7. Cell has hair like structures (cilia)	16
Cell's organ of locomotion is long whip-like flagella (no cilia)	9
8. Green color	9
Color not green	23
9. Colony of many cells	11
Single, motile cells	10
10. One observed locomotor flagella	15
Two observed locomotor flagella	14
11. Colony flat, disc-shaped, usually containing sixteen cells	Gonium
Colony spherical in shape	12
12. Colony contains 32 cells or less	13
Colony contains more than 32 cells	Volvox
13. Colony 32 cells	Eudorina
Colony contains sixteen cells	Pandorina
14. Cells elongated with narrowed posterior	Chilomonas
Cell oval-shaped	Chlamydomonas
15. Cell elongated, green in color	Euglena
Cell elongated, colorless, with a broad, rounded or truncate posterior during locomotion; highly plastic when stationary, often appears to vibrate	Peranema

when in motion	
16. Body has specialized groups of cilia, or cilia in specific areas	17
Body entirely covered with cilia	19
17. Cell not on stalk	18
Cell on stalk; cells contract (stalk appears to contract like a spring)	Vorticella
18. Cell oval-shaped with distinct point-like projections termed cirri (fused cilia); travels by "walking" using cirri	Euplotes
Cell oval-shaped with two distinct ciliary bands, one anterior and one in the middle of the body; swims with spiral motion	Didinium
19. Body trumpet-shaped or elongated	20
Body oval-shaped	22
20. Body elongated; never attached to substrate	21
Body trumpet-shaped; usually attached to substrate	Stentor
21. Large cell with elongated, flattened body with blunt ends; contracts to 1/4 of its body length when stimulated	Spirostomum
Small cell with elongated body, "cigar-shaped," with rounded ends; swims rapidly in a corkscrew fashion.	Paramecium (many species)
22. Small body, oval-shaped, with small mouth; fast swimmer	Colpidium
Extremely large body (visible with naked eye), with large, wide mouth	<i>Bursaria truncatella</i>
23. Pink or rose-colored (ciliate)	Blepharisma
Dark bluish green (ciliate)	Stentor



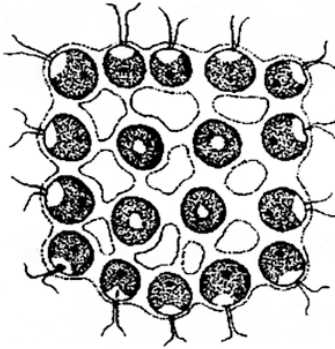
**Top View**



**Side View**

**Arcella**

45–100  $\mu\text{m}$  in diameter



**Gonium**

Colony up to 90  $\mu\text{m}$  in diameter



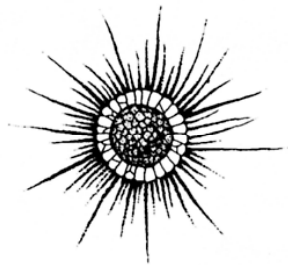
**Pelomyxa**

1–5 mm, monopodal length



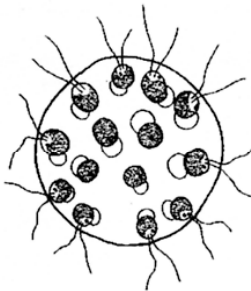
**Spirostomum**

1–3 mm in length



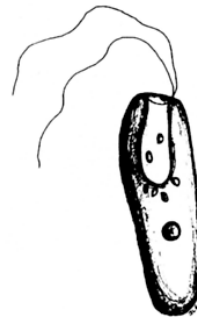
**Actinosphaerium**

70–80  $\mu\text{m}$  in diameter



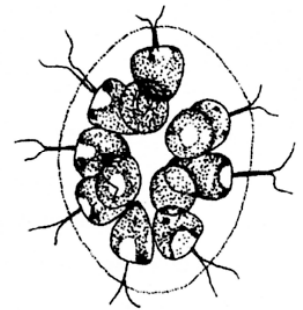
**Eudorina**

10–24  $\mu\text{m}$  in diameter



**Chilomonas sp.**

20–40  $\mu\text{m}$



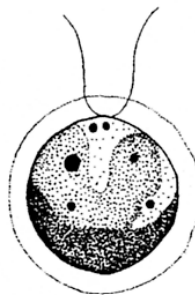
**Pandorina**

colony from 20–250  $\mu\text{m}$  in diameter



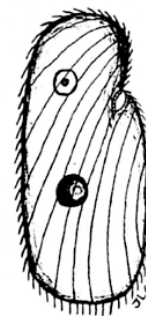
**Ameoba proteus**

up to 600  $\mu\text{m}$  or more, elongated



**Chlamydomonas**

5–12  $\mu\text{m}$  in length



**Colpidium sp.**

50–70  $\mu\text{m}$  in length



**Diffugia**

60–580  $\mu\text{m}$  by 40–240  $\mu\text{m}$



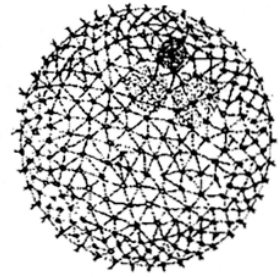
***Euplotes* sp.**  
100–200  $\mu\text{m}$   
in length



***Euglena***  
35–55  $\mu\text{m}$   
in length



***Peranema* sp.**  
20–70  $\mu\text{m}$   
in length



**Volvox**  
colony from  
350–500  $\mu\text{m}$  in  
diameter



***Stentor*  
*coeruleus***  
1–2 mm, extended



***Bursaria*  
*truncatella***  
500–1000  $\mu\text{m}$   
in length



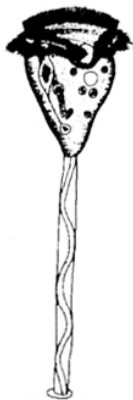
**Didinium**  
80–200  $\mu\text{m}$   
in length



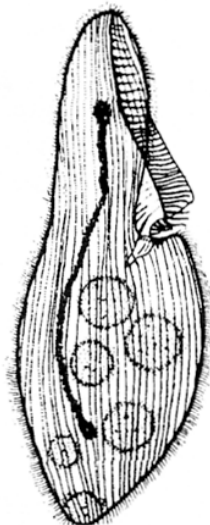
**Didinium Cyst**

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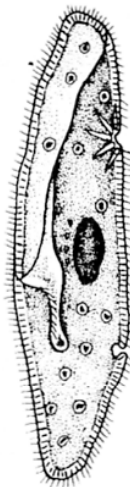
**Paramecium Species**



**Vorticella**  
50–15  $\mu\text{m}$   
in length



***Blepharisma* sp.**  
400–600  $\mu\text{m}$   
in length



***Paramecium*  
*multimicronucleatum***  
200–300  $\mu\text{m}$  in length



***Paramecium*  
*aurelia***  
120–180  $\mu\text{m}$   
in length



***Paramecium*  
*caudatum***  
180–300  $\mu\text{m}$  in length



***Paramecium*  
*bursaria***  
70–110  $\mu\text{m}$   
in length