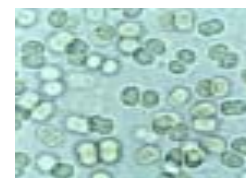
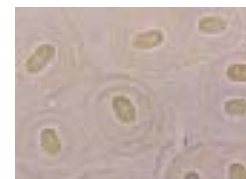
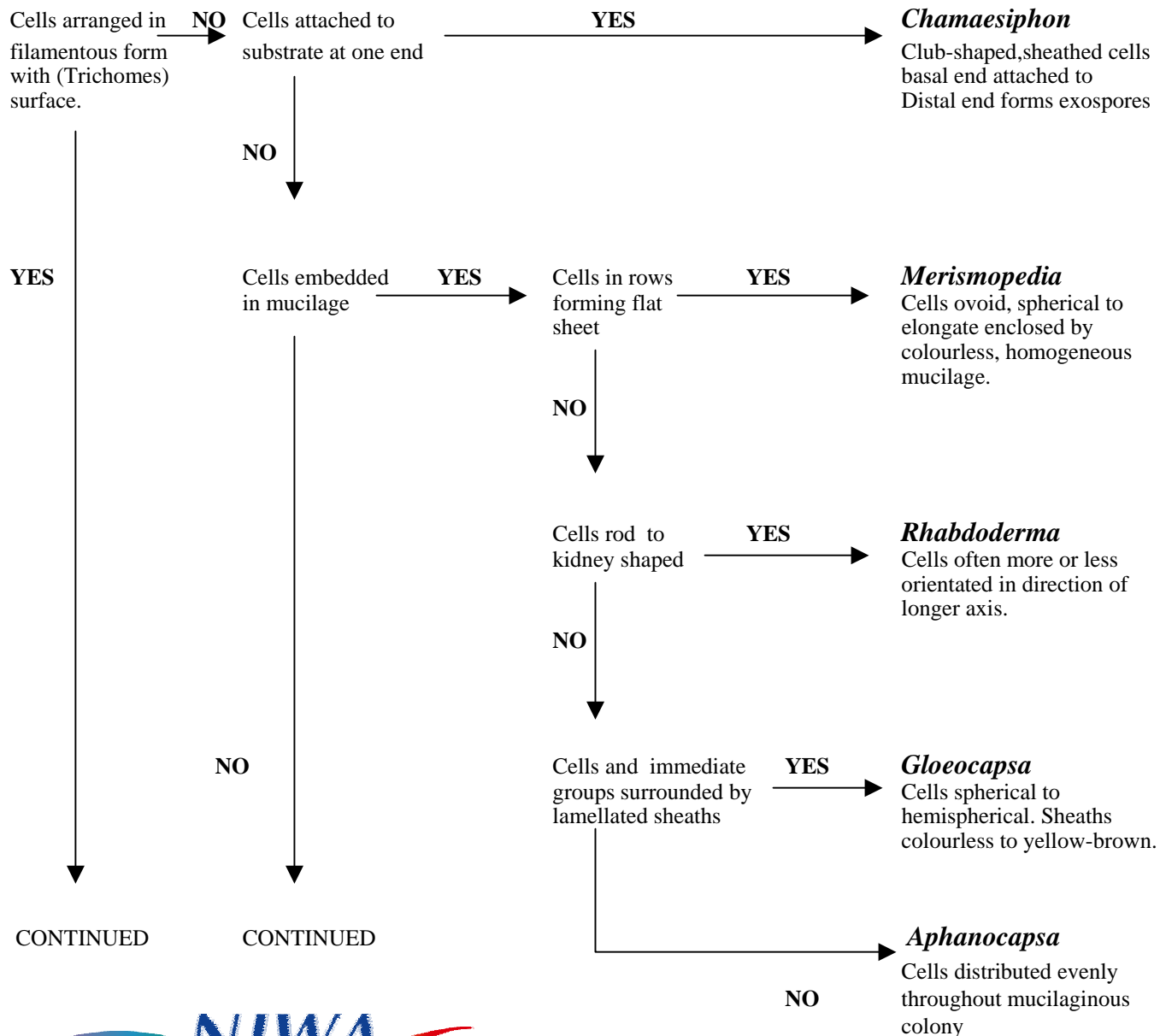


Quick-Guide to Common Genera of Freshwater Cyanobacteria

by Donna Sutherland



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Cells not in mucilage

Cells with own distinct sheath

YES

Chroococcus

Cells spherical, forming small clusters of 2 – 16 cells.



NO

Synechococcus

Cells ovate to oblong. Occur in single or small colonies.



Cells in trichomes

Specialised cells (heterocysts) with thickened cell wall present

NO

Sheath surrounding trichome

YES

Cells shorter than wide

YES

Lyngbya

Sheath distinct, often extending beyond trichome.



NO

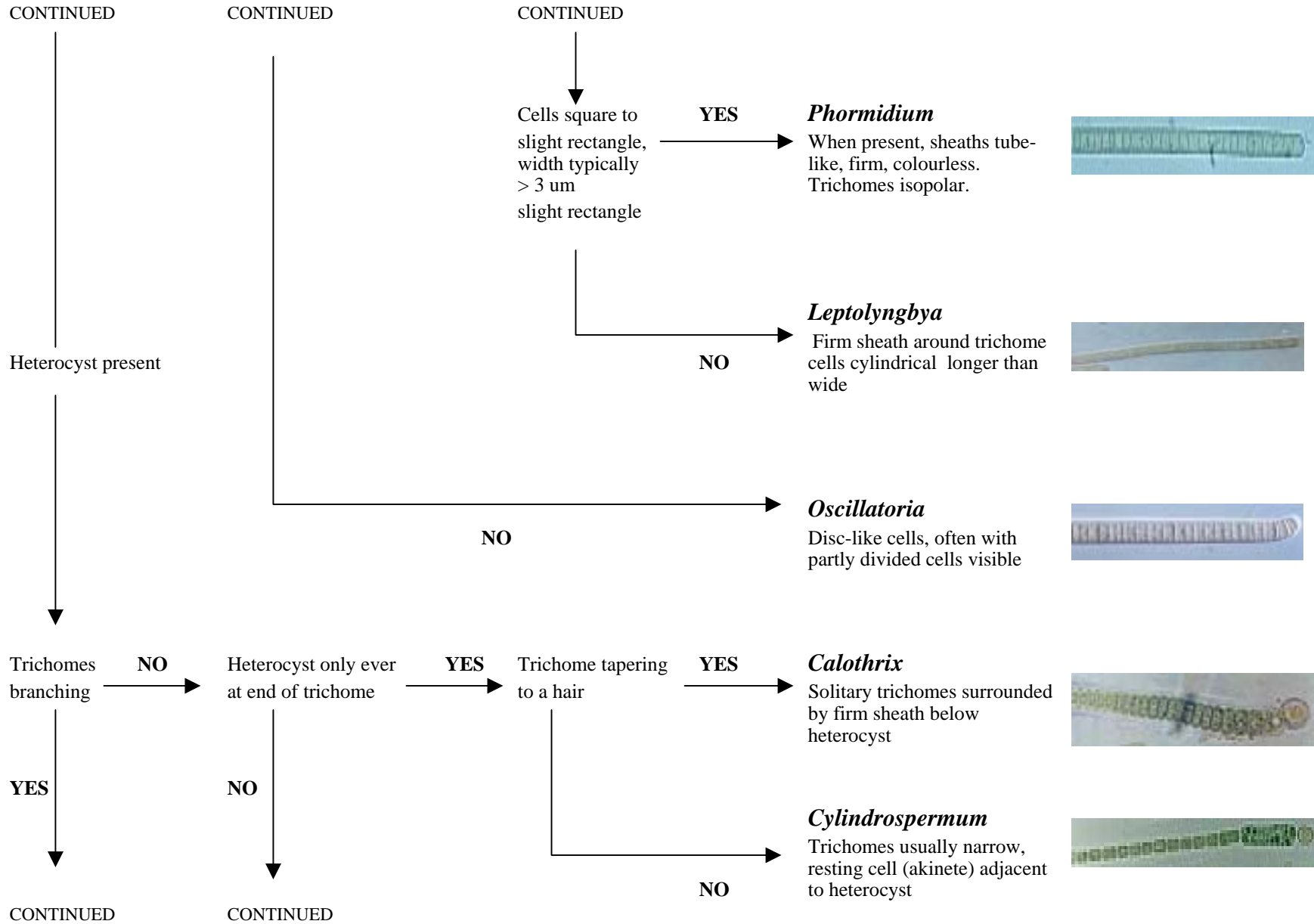
NO

YES

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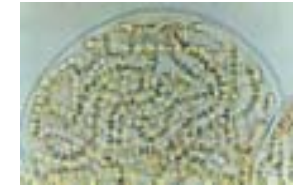
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Trichome forming
firm colony

YES

Nostoc

Macroscopic colonies with many trichomes in communal mucilage



NO

Single trichome with thin
distinct sheath

YES

Nodularia

Vegetative and heterocystous cells much broader than long (discoid)



NO

Anabaena

Trichomes coiled, tangled, rarely parallel. Within soft, diffuse mucilage



Branching formed
by separate trichomes
(false branching)

YES

False branching
always occurs at
heterocyst

YES

Trichome ends
in taper

YES

Dichothrix

Lateral false branches grow parallel to original trichome, later diverging. Basal heterocysts, rarely intercalary



NO

NO

NO

CONTINUED

CONTINUED

CONTINUED

CONTINUED

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CONTINUED

Each trichome within own sheath

YES

Tolypothrix
Sheath colourless, or more frequently yellow-brown. Trichomes rounded, loosely branched.



NO

Coleodesmium
Trichomes with basal heterocysts entwined together in a common, firm sheath



False branch not at heterocyst

YES

Scytonema
False branch always arising in pairs



True branching present

Main branch of filaments contains more than one row of cells (multiseriate)

YES

Stigonema
Secondary branches multiseriate. Heterocysts, where present, intercalary only.



NO

Hapalosiphon
Branching lateral (T branch). Sheath thin, colourless.

