

...yes - it is *Lemna gibba*, even if it is flat! Tackling common Duckweed dilemmas

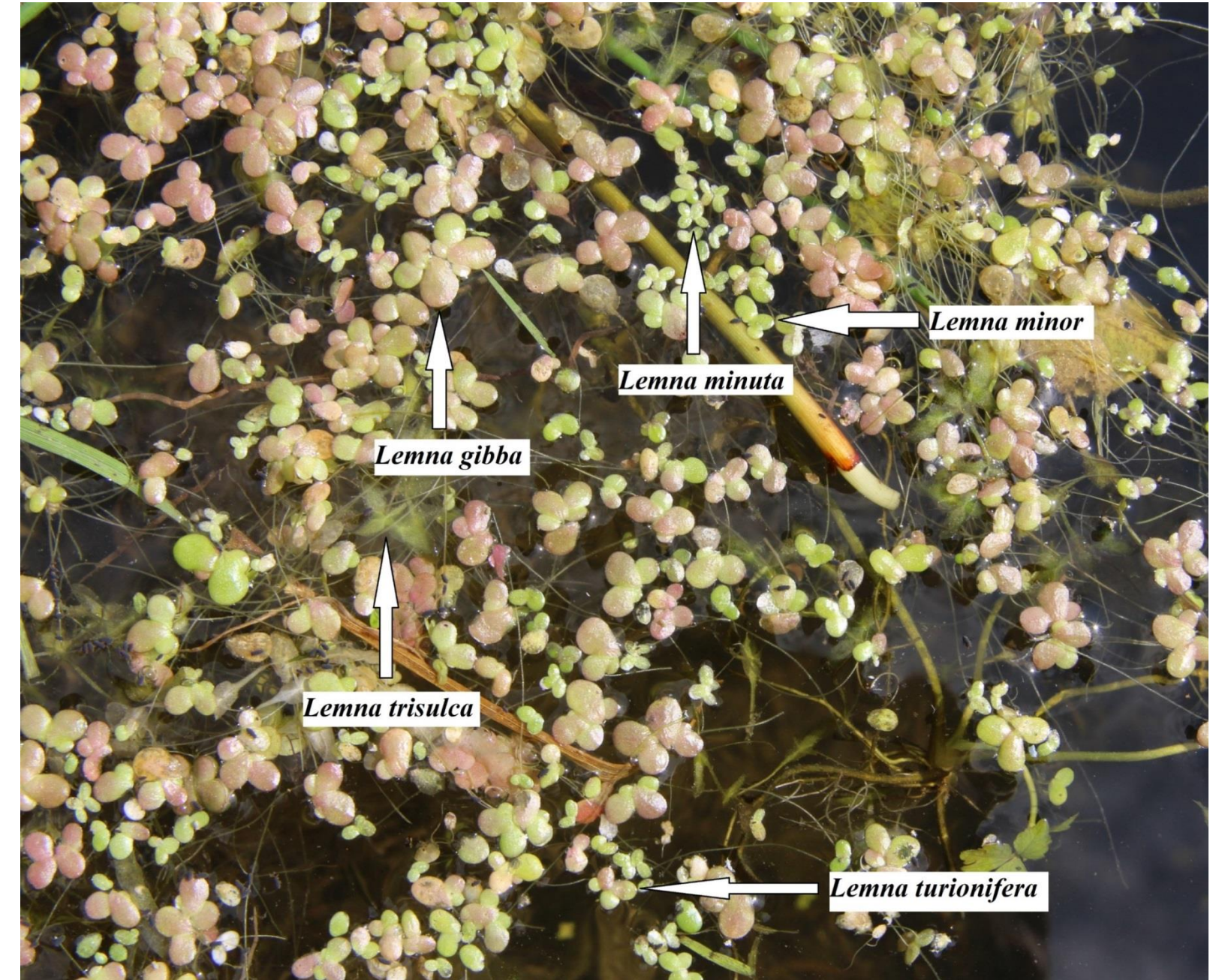
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Duckweed identification pointers and tips

- **Colour** is important - check mainly green fronds to see where any red colour starts to develop
- **Fronnd outline** is very important: asymmetry, widest point, shape of apex, etc.
- **Fronnd size** – Caution **minute isn't always minuta!** All species produce smaller fronds seasonally which may lack roots and which can persist all year
- **Lacunae** - hold a frond up to the light and check for large air-spaces showing through the green chlorophyllous cells
- **Nerves** seem almost impossible to use in most species unless the chlorophyll can be cleared from fronds– all small plants have just one!
- **Papillae** when present (relative sizes, numbers and position) can be useful features but treat with caution



Different species may be mixed but often you have different sizes of the same species (look at shape, colour)

The problem species

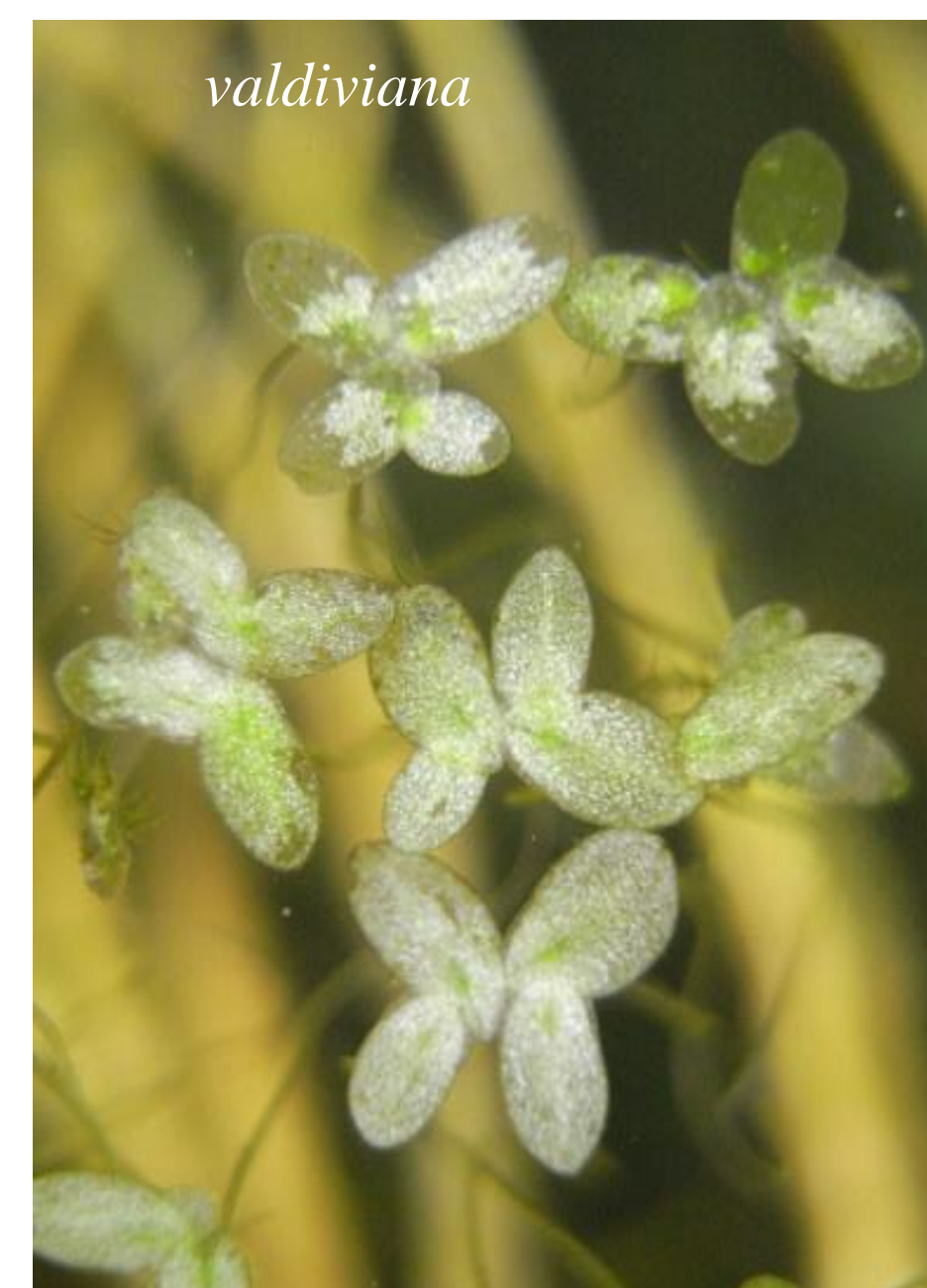
minor – yellow-green, rounded-rectangular, widest nr middle, opaque, no lacunae



minuta – grey-green, translucent, symmetric ellipses,



valdiviana - very pale, translucent, forming butterflies, a bit asymmetric, long visible vein



gibba - broadest near oblique asymmetric bluntly rounded apex, opaque, lacunae usually obvious, fronds sometimes reddening above and swelling below. Small plants often formed – more opaque / thicker than *minuta* and greener. Not globose like *Wolffia*

turionifera like small *gibba*, flat, rather rounded, becoming dirty red-brown but never swelling, with small lacunae, often reddening at root and with papules above like little horseshoe crabs.

Common Errors/Issues

- Over-recording of *L. minuta* for small examples of *L. gibba* and *L. minor* – *minuta* should be thin/translucent, grey-green and neat ellipses.
- Over recording of *L. minor* for flat *L. gibba* – check frond shape and presence of lacunae. *L. gibba* is easily our commonest species!
- Over-looking of *L. turionifera* – easy to ID if typical but most plants lack some features. Small roundish flat brownish plants should be checked
- Rootless small *Lemn*as vs. *Wolffia* – do the touch test...little gritty peas = *Wolffia*.
- Some small plants are not nameable – take them to grow on, or forget them. No record is better than an inaccurate record.
- Be aware of other alien species which may become naturalised (see handout)