

GROWING *UTRICULARIA GIBBA*

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I like aquatic plants and have three aquaria filled with them and fish. So when I saw *Utricularia gibba* listed on the ICPS seed bank inventory, I was immediately tempted. Since I am a librarian I am an information geek, and totally research any new plant I try. Since I could find no specific instructions about growing aquatic *Utricularia* from seed, I accumulated what I could find about *U. gibba* and its environment. Taylor (1989) described it as an aquatic that is mostly anchored, sometimes free floating. All the writings I found, Taylor included, stated that *U. gibba* flowers only in very shallow water, or at least when a web of it is supported in deeper water by a floating mat of other vegetation or its own accumulation of biomass.

I thus decided to try to grow the seeds in a small container with a substrate, since I thought that in nature the seed capsules would open and disperse the seed where the flowers bloomed—in shallow water, with the *U. gibba* anchored in the substrate below. I washed a few milliliters of fine silica sand several times (to remove any salts) and mixed it with an equal part of Canadian peat moss, and transferred the mix to an old fashioned, wide-mouth glass mason jar containing about 350 ml (1 1/2 cups) of distilled water. I let the mixture mature in a bright north window for about a week and a half. The sand and peat settled to the bottom of the jar, leaving the water with a very slight peaty look. I did not put it under my lights because I did not want to encourage any algae growth that would compete with the seeds.

After a week and a half, I sprinkled the seeds on top of the water. Usually when I plant seeds, I try them in a variety of containers and media, but these seeds were so small that I decided to put them all in the single mason jar. I debated about stirring or disturbing the water in any way, but decided that in nature the seeds would land on top of the water and do what they do, so I simply returned the undisturbed jar to the bright north window. I planted the seed on 4 July 2003 (I keep detailed records of all my attempts). I did nothing to the jar, but examined it frequently. On 28 July 2003 I saw a tiny green thread, just 1-2 mm long. What was interesting was that the thread was suspended in the middle of the jar, half way from the surface and the bottom. I could see no evidence of green on the peat slurry at the bottom of the jar. I put the jar close up under my plant lights. By 9 August 2003, the first thread was 5 cm (2 inches) long; at that point the *Utricularia* took off, quickly growing into a mass of green threads. I do not know how many of those original seeds sprouted because I had no chance of noticing any other



Figure 1: My jar of *Utricularia gibba*. Photograph by Steven Holloway.



Figure 2: Part of my growing set-up for carnivorous plants. Photograph by Steven Holloway.

individual sprouts in the web mass.

My *Utricularia gibba* has filled the mason jar and is still doing nicely (see Figure 1). I do not seem to have as much trouble with algae as others have reported on the internet. I have twice scooped out my *Utricularia gibba*, rinsed it in several changes of distilled water, picked out clumps of algae with tweezers, scrubbed out the mason jar with hot water and prepared new substrate, but basically I pick out clumps of algae with my tweezers from time to time. To date, my *Utricularia gibba* has not flowered, and shows no interest in anchoring itself to the bottom even though it is growing in only a few centimeters of water. It is totally a midlevel plant and only the occasional stray stolon reaches down towards the substrate. I have noticed that all the bladders seem to be near the surface of the water. If I look down onto the surface of the mason jar, I see hundreds of bladders, but if I peer at them sideways through the jar, I see mostly a net of stolons.

From what I have read, the other aquatics (which are usually much bigger) like deeper water, thin sheets of water over deep muck, or are rare specialists anchored in running water, so I do not know how my success with *U. gibba* could apply to them. I would like to grow other aquatic *Utricularia*, as bladderworts are my favorite carnivorous plants and I would like to add more to my a modest collection of carnivorous plants (see Figure 2). However, I believe the other aquatics would be far beyond my Chicago apartment. I feel no need to accumulate an immense growlist, but rather I enjoy reading about all the other rare and interesting *Utricularia* species in their natural habitats, and I collect the information in large binders. So you see, I am a librarian at heart.

References:

Taylor, P. 1989, Kew Bulletin Additional Series XIV: The Genus *Utricularia*—a taxonomic monograph. Her Majesty's Stationery Office. London. pp. 724.

LOOKING BACK: CPN 25 YEARS AGO

Notes were reprinted from a 1932 *Sarracenia* collecting trip by the highly regarded Dr. E.T. Wherry, through the southeastern USA. While this kind of collecting trip would be hard to justify today, it is a remarkable read. For example, from his search for *S. jonesii*: "Its colonies proved to have been nearly destroyed by drainage of the swamps and by the raids of vandals from the towns, but enough remained to enable this species to be added to the collection. With it grew some beautifully veined *Sarracenia venosa*.... We also found hybrids between *S. venosa* and *S. jonesii*." Note: we now would refer to the "beautifully veined" species as *Sarracenia purpurea* subsp. *venosa* var. *montana*.