

## How to make and record Gloeotrichia observations

1. Go to <http://www.colby.edu/chemistry/Gloeotrichia/Gloeotrichia%20web/Home.html> and click “Volunteer Data” which is among the selections across the top of the page.
2. You will find “Gloeo Target.pdf.” Print that as your reference sheet for judging the abundance of Gloeotrichia at your observation site. (Use the print button on the Adobe toolbar, not your browser print options. Printing will be slow, but it is a one time chore.) IMPORTANT: the circle on the drawing is equivalent to 1.5 inches on the water surface. Practice assessing this by eye until you have it well established in your mind. You will use the numbers on the chart when you enter “Gloeo Density” in the on-line “Data Entry” form to be described below.
3. Next, open the map, print a copy and fill out the personal data form. CAREFULLY mark the site where you will make observations. (These will be matched to a Geographic Information System coordinate by the Colby Study team.) Mail your map to Colby at:

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4. Next, click on and view the “Gloeotrichia Log Sheet.pdf” where you will find self-explanatory paper data sheets to print. Make three entries or more per week on these sheets—one sheet per week—and keep them in a notebook for your interest and for backup. You will also enter your observations in the on-line data entry form.
5. Click on “Gloeotrichia Data Entry” (password is case sensitive “H2O”). Fill this out each time you make an observation. Most entries are obvious. You have already printed and learned the guide for “Gloeo Density.” Following are guides for other entries:
  - a. Wind speed. (criteria from VLMP guide) Estimate a single number for speed

<b>Mph</b>	<b>Effects: Water/ Land</b>
0-7	Smooth, small wavelets/ Leaves rustle, wind on face
8-11	Large wavelets, scattered white-caps/ Leaves and twigs in constant motion, flag waving
12-16	Small waves, frequent whitecaps/ Raises dust and loose paper, small branches moving
17-24	Mod. Crested waves, many whitecaps/ Small trees begin to sway
25-35	Large waves, foam, blown spray/ Whole trees in motion

- b. Enjoy(ment) Effect. Consider number 3 the level at which at least some of a family would decide to pass up a swim.
- c. Secchi and Temperature: These are not essential. If you do perform Secchi readings, enter them. Air Temperature should be available to you. Water temperature thermometers are inexpensive and would help fill out readings since Gloeotrichia is affected by temperature. Convert your readings to Centigrade by either subtracting 32 from the Fahrenheit temperature and multiplying by 5/9 or by using a scale at <http://www.dia.org/education/egypt-teachers/mathsci/wilson/scale.htm>