

a population of 200,000, a capital with a population 80,000. The annual trade of the Island is represented by \$4,000,000 of imports, and \$6,000,000 of exports. But in addition nearly the whole African coast north of Zanzibar to the Gulf of Aden has come virtually into the Empire, which on the whole is increased by about twice the area of the German Empire itself. Mutual concessions between the British and Germans have been made in Central Africa. The Portuguese territory is co-terminous with much of the German boundary. It remains to be seen if after some further experience the Portuguese will find the Germans more considerate neighbors than the long suffering Britons whom they are now so angry with. Our maps must be altered.

The Halifax Academy closed on June 27th, with a musical and literary programme in five languages: English, Latin, Greek, French and German. The large convocation hall was packed with about eight hundred people. The Hon. J. W. Longley, attorney general, Robert Taylor, Esq., chairman of school commissioners, Judge Motton, Rev. D. M. Gordon and Rev. President Forrest, who were present on the platform, highly eulogised the institution. The chairman of the school board was also congratulated on the rapid improvement in all grades of the public schools in the city under the present supervisor.

The musical and other excellencies of the entertainment were specially due to the genius and energy of Miss Mackintosh, of the academic staff.

Mr. W. F. Ganong, instructor in botany at Harvard, will conduct Dr. Goodale's class next year while the latter is absent in Europe.

The indications are that the attendance at the summer school, to meet at Parrsboro on the 21st inst., will be greater than ever before.

Plant Study in July.

Among the plants that should be looked for in July are the two Sundews—*Desora rotundifolia* and *D. intermedia*, var. *Americana*. Both are found in damp soil, by the way side, or in sphagnous swamps. Both have rosettes of leaves, beset with small reddish spines, which are tipped with a little drop of a clear, glutinous fluid which glistens in the sunlight like dew—hence the common name. This rosette of leaves as it lies open on the ground, with its glistening points, is a trap for unwary small insects. They alight upon the leaves and if they are weak and small—like mosquitoes and black flies, for instance—they fail to release themselves in spite of all their efforts. The bristles begin to enfold them, and the leaf after a few hours bends over, entombing the unfortunate insect. It

is interesting to watch this process. Take up a plant with plenty of earth attached, place it in a saucer in the window, and tempt its appetite by a mosquito, or if you are too humane to make a living sacrifice, take a small piece of raw beef. Watch results. The process by which these insectivorous plants—for so they are called on account of their habits—retain and digest their food is an interesting one to watch, lasting several days.

The most common—the round-leaved sundew—is found everywhere in New Brunswick and Nova Scotia, the other form with longer spatulate leaves is less common but should be looked for. Both send up in July and August from the centre of the leaves a scape bearing a one-sided raceme of flowers.

The sphagnous swamps in July and August will furnish some of the rarest and most beautiful orchids to be found in our country. These swamps "crave wary walking," too, but with a strong pair of boots, and by avoiding the softer and more yielding places, one can get along very safely and comfortably. The Pitcher-plant (*Sarracenia purpurea*), with its purple, nodding flowers, on long scapes, with its circle of hollow, pitcher-like leaves spreading from the root, is a conspicuous object in July, in bogs and on the wet borders of lakes. This is another catcher of unwary insects. Look at the inner face of the rounded, arching hood at the top of the leaf, and there will be seen a beautifully variegated surface, with stiff bristles pointing downward. Then look down into the curious pitchers, half filled with water and drowned insects. Very little observation will show the road to this pit, from which, apparently, no insect traveller returns. The inner surface of the hood apparently exudes a sweetish substance, sipping which the insect unconsciously and pleasantly travels on, and when he suddenly sees the pit before him, the stiff hairs, pointing downward, prevent return. (These peat bogs and sphagnous swamps give us material for moral lessons, too, do they not?) Now, for what purpose is this wholesale slaughter of insects? Is it to provide the plant with nourishment? That is possible, but not probable. The store of food in these pitchers, perhaps tempt larger insects to drop their eggs in them, so that when hatched there may be abundance of food for the brood. The writer has seen pupa cases in the putrid remains of old leaves. The subject needs further investigation. Let us examine more fully this summer. Do not fail to examine carefully the wonderful structure of the flower, as well as the leaves of the pitcher-plant.

Some beautiful orchids will be found in sphagnous swamps, in July. You will be sure to notice two, which are common, and very beautiful: *Arethusa bulbosa* has a single, rose-purple flower, on the top of a sheathed scape, which rises from a solid bulb buried in the sphagnous moss. *Calopogon pulchellus* also rises from a solid bulb buried in the moss, has a grass-like leaf, and bears two or more pink purple flowers. The white fringed orchis may also be found in swamps, with other handsome orchids. Remember that July and August are the months for orchids—our most beautiful and showy plants. Many are rare as well as beautiful. The showy Lady's Slipper—*Cypripedium spectabile*—will give you such pleasure that the remembrance will last for a life time. Look for it in cedar swamps.

Good teachers must be left free to work out the required ends in their own way. Freedom and responsibility in the teacher are a cardinal element of the new education.—*Supt. Geo. A. Littlefield.*