97. *Dipsacus sylvestris* Huds. Teasel. Thoroughly established on the sides of the ponds along the railroad tracks, etc., from Bountiful, Davis Co., north to Logan, Cache Co., and beyond.

98. *Maruta Cotula* (L.) DC. (*Anthemis Cotula* L.) Dog Fennel; Mayweed. Well established and increasing in Utah, Salt Lake and Beaver Counties, and probably in other parts of the State where it has been introduced.

99. *Sonchus arvensis* L. Field Sow Thistle. An abundant weed along the streets in the southern part of Salt Lake City.

100. *Tragopogon dubius* Scop. Yellow-flowered Salsify. Becoming fairly common at Salt Lake City, but abundant in Cache Co.

101. *Inula Helenium* L. Elecampane. Sparingly escaping, but well established, at Provo, Utah Co., and Orangeville, Carbon Co.

102. *Onopordon Acanthium* L. Cotton Thistle; Scotch Thistle. Permanently established near Grantsville, Tooele Co., and at Salt Lake City.

East High School,
Salt Lake City, Utah.

SHORTER NOTES

The J. Roberts Lowrie Herbarium.*—During August, 1920, the officials of The Pennsylvania State College received a letter from Mr. Roberts Lowrie, of Philadelphia, stating that it was the desire of the family to present the herbarium, prepared by his father, Mr. J. Roberts Lowrie, formerly of Warriorsmark, Pa., to the College. Acting on the suggestion contained in the letter, the writer, accompanied by Professor C. R. Orton, made a visit to the Lowrie residence in Warriorsmark to accept the herbarium on behalf of the College and to learn more of the botanical activities of its maker. On this and a subsequent visit to Warriorsmark, a village at the base of the Bald Eagle Ridge about twenty-five miles southwest of State College, we were most cordially received at the beautiful old homestead by Miss Sarah R. Lowrie,

* A note presented to the Botany Seminar, The Pennsylvania State College, March 16, 1921.

daughter of Mr. J. Roberts Lowrie. From Miss Lowrie and from an account in the Botanical Gazette,* written by Dr. Thos. C. Porter, shortly after the death of Mr. Lowrie, we gained the following interesting information regarding the life of Mr. Lowrie.

In 1854 Mr. Lowrie took up his residence at Warriorsmark, having taken the position as legal adviser and general manager for what was at the time the largest iron manufacturing firm in the United States. This firm "owned one of the largest estates in central Pennsylvania, including farms, furnaces, ore-banks, and many thousand acres of mountain lands covered with forests." Mr. Lowrie was strongly inclined to the study of the natural sciences, particularly botany, and, as Dr. Porter points out, this situation gave him a fine opportunity for such studies. That Mr. Lowrie took advantage of this opportunity to study the native flora is evidenced by the fine herbarium he left which is rich in the rare and interesting plants of central Pennsylvania. The fact that specimens were taken in some of the regions which are now favorite collecting grounds for the botanists of the College adds further interest to this collection. During the sixty-six years since the founding of the Pennsylvania State College, Bear Meadows, an elevated mountain-bog, has been a famous place for botanical explorations. Mr. Lowrie collected there before the college was founded. *Listera convallarioides* Hook., said by Porter to be known in no other station south of northern New York, was collected in Bear Meadows by Mr. Lowrie in 1853. *Prunus Allegheniensis,* described by Porter, a restricted species of central Pennsylvania, was brought to light by the efforts of Mr. Lowrie. *Aster Lowrieanus,*† dedicated to Mr. Lowrie by Dr. Porter, is an evidence of high esteem for contributions "to our knowledge of the flora of central Pennsylvania."

Not only did Mr. Lowrie build up his herbarium with collections from his own region, but through his acquaintance with other botanists he arranged for exchanges so that many other

* Bot. Gaz. 11: 64. 1886.

† Bull. Torrey Club 21: 121. 1894.

parts of the United States are represented by specimens. The very numerous specimens collected by Dr. Porter are of particular interest, since the Porter herbarium, originally at Lafayette College, Easton, Pa., has been so severely damaged by fire.

The specimens are mounted on standard size sheets and are in good repair. In going over the collection it was found that there are 2,750 specimens. These represent 144 families and 707 genera. In addition to the mounted and classified specimens, there are a large number, perhaps a third as many more, unmounted and not incorporated into the collection. These came into our hands in the condition in which they lay on the owner's work table at the time of his death.

It may not be out of place to mention here that Mr. Lowrie's love of plants was further evidenced by the unusually attractive and extensive manner in which he converted the grounds about his house into an arboretum. These beautiful grounds filled with rare and interesting shrubs and trees, both native and exotic, occupy a space of nearly twenty acres. During the thirty-five years since the death of Mr. Lowrie this veritable park has not had the care and attention that it would have received from its originator, but even after this long lapse it is still a most remarkable place, both for its beauty and scientific interest. The wonderful afternoon which we spent there last August will not soon be forgotten, and it is our hope that this living monument may be long preserved to flourish in memory of its maker.

FRANK D. KERN.

CYNOSURUS ECHINATUS IN OREGON.—In the February, 1920, issue of the American Botanist (Vol. 26, No. 1) attention was called to the collection of *Cynosurus echinatus* at Eugene, Oregon. It was also recorded in TORREYA (Vol. 19, No. 10, p. 189). Since this species is still very rare in the United States, it might prove of interest to state in detail the conditions of its growth and occurrence. My first specimens were obtained in June, 1919, on Skinner's Butte, which is a very good station for the study of grasses; it is directly north of Eugene—between the city and the Willa-

mette River. The soil here is dry both winter and summer on the open south side. On the north side, however, is a heavy wooded area. Among the typical grass flora found on these rocky south slopes the most common species are: *Aspris caryophyllea* (L.) Nash; *Poa pratensis* L.; *Poa annua* L.; *Poa compressa* L.; *Poa scabrella* (Thurb.) Benth.; *Festuca idahoensis* Elmer; *Festuca megalura* Nutt.; *Gastridium ventricosum* (Gouan) Schinz and Thell.; *Elymus Caputmedusae* L.; *Elymus glaucus* Buckl.; *Sitanion jubatum* Smith; *Agropyron tenerum* Vasey; *Stipa Lemmoni* Scribn.; *Bromus marginatus* Nees; *Bromus hordeaceus* L.; *Bromus villosus* Forsk.; and *Agrostis Hallii* Vasey.

The plants of *Cynosurus echinatus* were on the southwest lower slope of the butte, overlooking the railroad. There were a large number of fine specimens along a dry ditch and a road which leads to the summit. They were growing thickly together, but only in this one restricted location. Last summer the number had increased, and the dead stalks of the year before could still be easily recognized.

I was greatly surprised in June, 1919, to find a few specimens also on the lower west side of Spencer's Butte, along a narrow trail, in a cleared space overgrown with grass and surrounded on all sides by dense woods. This butte is 2,063 feet high and is about six miles south of Eugene. On both buttes this grass was found in rather dry, rocky soil. Prof. J. K. Henry has included this species in his Flora of Southern British Columbia on page 37, and writes me in regard to it: "*Cynosurus echinatus* is a not uncommon introduced grass on dry hillsides or even occasionally in gardens near Victoria." He first collected it there about five years ago.

In appearance *C. echinatus* is not very similar to *C. cristatus*, which is sometimes found on parkings in Eugene. The spikelets are somewhat alike in the two species, but the awns of *C. echinatus* are long and produce a prickly or burry effect which is not present in *C. cristatus*. In the former the panicles are long and slender, while in the latter they are compact and hardly over 3 cm. long. Both species are slender and rather inconspicuous. *C. echinatus*

could not be mistaken for any of our native grasses. The only grass that grows here that even suggests it is a small dry and stunted *Dactylis glomerata*—and this an introduced species.

In order to give an idea of the occurrence of *Cynosurus echinatus* in the United States, the following list of herbarium material will indicate its scarcity:

* 1. Gray Herbarium. No specimens from the United States.

* 2. New York Botanical Garden, also none from the United States.

* 3. U. S. National Herbarium.

California: Marin Co., 1912, *Eastwood*.

Oregon: Eugene, *Bradshaw*.

Of the four species now retained in the genus *Cynosurus* L., only two are found introduced in the United States; all are of the Mediterranean region. *C. cristatus* L. is sometimes cultivated in this country, but is of practically no economic importance. The other seven Linnean species are now referred to other genera. Hackel says in Engler and Prantl (Nat. Pflanzenf. II. 2, 73): "*C. echinatus* L. in Südeuropa, Ackerunkraut." *C. echinatus* belongs to the section *Phalona* (which Adanson made a genus), while *C. cristatus* is included in the section *Eucynosurus*. There is a good figure of *C. echinatus* in Engler and Prantl. Besides the material from the United States, the following regions are represented by collections in the U. S. National Herbarium: South America; Africa; New Zealand; Italy; France; Syria; England; Switzerland; Spain–Portugal; Austro-Hungary–Balkans; and the Canary Islands. Macoun collected it as far back as 1908 in Nanaimo, Vancouver Island.

For assistance in the preparation of data I am deeply grateful to: Mrs. Agnes Chase; Dr. J. H. Barnhart; Dr. J. K. Small; Miss Mary A. Day; Prof. J. C. Nelson; and Prof. J. K. Henry.

R. V. Bradshaw.

Eugene, Oregon.

The Boy Scouts and Conservation of Wild Flowers.—One of the subjects recently offered to scouts for merit badges is

* Duplicates of my collections are to be deposited in these herbaria.

botany. To secure this badge a scout must collect, mount and label fifty specimens of flowering plants, *without the roots.* In addition, five each of ferns, mosses, liverworts, lichens, fungi and algae must be prepared and, if possible, labeled. One of the other requirements is an essay of at least two hundred words on the conservation of wild flowers. Both the scout handbook and the merit badge pamphlet on botany emphasize the necessity of protecting plants and caution scouts not to gather rare flowers. Parts of two essays recently submitted to the editor by applicants for the Botany Merit Badge are given here as showing the understanding scouts have of the importance of wild flower conservation.

"Leave the flowers alone. Let them grow. By doing this you can help to increase the beauty of the country. Among the flowers that are being exterminated are the Jack-in-the-Pulpit, Spring Beauty, Mountain Laurel, Flowering Dogwood and Wild Pink. It will be noticed that all of these are now seldom seen near the cities and some of them seldom in the woodlands. A good rule to follow is 'Never collect one flower unless there are three seen, nor collect two unless six are seen, and never collect a root unless there are more than ten plants in the colony.'

"One of the most important works of Botanists should be the conservation of wild flowers. This is especially important in the parks and other places about cities. If people are allowed to gather as many flowers as they wish some of the rarer flowers will soon be extinct in the unprotected places. Among those flowers which are in danger of extinction is the Pink Lady's Slipper. This flower may be found in deep woods along with the mountain laurel. It is very attractive and likely to attract the attention of any passer by. The Mountain Laurel also is in danger of being wiped out, for it is gathered in great bunches by people who picnic in the mountain woods. Although it is abundant now it is being rapidly diminished."

THE EDITOR.