Notes

Reflowering in some Tundra Plants in October near Nome, Alaska

Abstract. Cassiope tetragona, Empetrum nigrum and Salix alaxensis reflowered after a period of unseasonably warm weather in October 1969. Several plants that normally flower before these species in the spring did not initiate flowering.

Nome, latitude 64° 30' N, longitude 165° 30' W, is considered in the Arctic zone by both Porsild (1951) and Polunin (1955) as the climate and vegetation is influenced by its proximity to the Bering Straits. The western limit of treeline on the Seward Peninsula is near Council approximately 60 miles to the east. The vegetation on most of the hills on the western Seward Peninsula consists primarily of dwarf shrub-lichens on the slopes and Dryas fell-fields on the summits. The principal species in the dwarf shrub-lichen type are bog blueberry (Vaccinium uliginosum), dwarf birch (Betula nana) crowberry (Empetrum nigrum), Labrador tea (Ledum decumbens) and the lichens, Cladonia rangiferina, C. arbuscula, C. gracilis and Cetraria islandica. On sites where snow remains till late in the summer, Lapland cassiope (Cassiope tetragona) is the dominate subshrub.

The summer of 1969 was relatively normal: the plants flowered, produced seeds, and the deciduous species dropped their leaves by mid September. Then from October 6 to 25, a beautiful Indian Summer prevailed, with daily temperatures above normal (Table 1) under clear skies.

I was trapping microtines in a dwarf shrublichen stand on Anvil Mountain, three miles north of Nome, during October. On the 23rd, after a rain that lasted most of the morning, I noticed that Lapland cassiope was reflowering profusely.

Upon examination of other species, crowberry, which has small inconspicuous flowers, and the catkins of felt-leaf willow (*Salix alaxensis*) proved to be flowering as well. Although *Anemone multiceps, A. parviflora, Saxifraga oppositifolia* and *Geum glaciale* are normally the first plants to flower in the spring near Nome, I was unable to find any indication of flowering in these species. The buds on Alpine bearberry (*Arctostaphylos alpina*), another early flowerer, were enlarged. Crowberry and felt-leaf willow are among the early species to flower at Nome, but Lapland cassiope usually flowers after several other species. Weeden (1968) in Central Alaska found Lapland cassiope flowered about 15 days after the first species.

Crowberry and Lapland cassiope were among the few type 7 species, i.e. those that overwinter with fully developed flower buds and pollen, examined by Sørensen (1941) in Greenland. Of the other type 7 species listed by Sørensen (1941 Table 7) only Lapland rhododendron (*Rhododendron lapponicum*) was observed on Anvil Mountain and it was not found to be flowering.

Crowberry and Lapland cassiope are evergreens while most of the early blooming species are either deciduous or overwinter in basal rosettes. The common evergreens in the area that normally flower in the spring before Lapland cassiope include black oxytrope (Oxytropia nigrescens), Alpine azalea (Loiseleuria procumbens), eight petalled mountain avens (Dryas octopetala), diapensia (Diapensia lapponica), Lapland rhodo-

Date	Temperature			Departure	Precipi-
	max.	min.	ave.	from normal	tation
$\begin{array}{c} 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ \end{array}$	$\begin{array}{r} 43\\ 44\\ 43\\ 37\\ 38\\ 39\\ 42\\ 49\\ 47\\ 50\\ 49\\ 55\\ 48\\ 40\\ 37\\ 38\\ 39\\ 42\\ 43\\ 35\\ 30\end{array}$	$\begin{array}{r} 37\\ 37\\ 36\\ 30\\ 29\\ 27\\ 40\\ 40\\ 36\\ 35\\ 35\\ 35\\ 35\\ 35\\ 35\\ 35\\ 35\\ 35\\ 35$	$\begin{array}{r} 40\\ 41\\ 40\\ 34\\ 34\\ 34\\ 35\\ 45\\ 45\\ 42\\ 45\\ 42\\ 32\\ 33\\ 35\\ 37\\ 39\\ 39\\ 39\\ 29\\ 24\\ \end{array}$	$ \begin{array}{r} + & 6 \\ + & 7 \\ + & 5 \\ + & 1 \\ + & 1 \\ + & 1 \\ + & 2 \\ + & 3 \\ + & 14 \\ + & 13 \\ + & 12 \\ + & 12 \\ + & 12 \\ + & 13 \\ + & 3 \\ + & 5 \\ + & 7 \\ + & 9 \\ + & 12 \\ + & 12 \\ + & 12 \\ + & 13 \\ + & 3 \\ - & 1 \\ \end{array} $	$\begin{array}{c} .15\\ .13\\ t\\ t\\ t\\ t\\ .13\\ .10\\ .03\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\ 0\\$
28 29	26 22	11 6	19 14	-6 -10	0 0

TABLE 1. — Temperatures and precipitation recorded at Nome during part of October 1969.

Vol. 86

dendron and Labrador tea. I examined several of these species but found no indication of initiation of flowering. Felt-leaf willow, although deciduous, will develop catkins and leaves throughout the winter if cuttings are placed in moderate temperatures. It froze during the early morning hours of October 26 and by the afternoon all of the blossoms had wilted. To that time Alpine bearberry had not flowered.

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Received March 16, 1971 Accepted June 4, 1971

The Application of Closed-circuit Television to Nature Interpretation

Abstract. Closed-circuit television revealed two interesting sequences of predation. A short-tailed weasel was seen predating a ruffed grouse nest, and a garter snake was seen seven feet up a hawthorn tree at a goldfinch nest.

Modern technology is receiving its lumps from people concerned about the quality of our environment, and in many cases deservedly. However, there are some products of modern technology that are extending our knowledge and understanding of the environment. One such device used for display purposes at the Wye Marsh Wildlife Centre is the closed-circuit television system. Initially conceived to give the inexperienced city dweller some intimate views of nature, it has even on occasion startled the sophisticated naturalist.

Two recent views of predation of birds nests are worth noting. A ruffed grouse nest was the location of the first drama. The camera was set up on the nest with 11 eggs. A day after setting up the camera an egg was found unharmed 20 yards from the nest. By June 15 only six eggs remained. On the morning of June 15 the nest robber appeared — a short-tailed weasel.

As we watched, he took one egg at a time and carried it out of range of the camera. Each egg was taken in his mouth whole. During the weasel's trips back and forth to the nest, the mother bird spread her tail feathers and puffed herself up but remained very ineffectual. The weasel returned one final time, inspected the nest, and left to enjoy in private his bountiful repast.

The next encounter with a predator occurred again in the morning on August 1. This time the prey were six american goldfinch eggs, and the predator was a garter snake. The nest was located 7 feet up in a hawthorn tree. Unfortunately all anyone saw was the snake uncoiling from around the branch of the hawthorn tree above the nest preparing to leave the scene. Quickly, rushing out into the field, we discovered all the eggs were gone and the circumstantial evidence certainly pointed at the "aforesaid" garter snake.

There have been many interesting activities observed through the eye of our television camera, and we often wonder about some of the events we must miss.

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The Nessus Sphinx Feeding on Decaying Vertebrates in Ontario

Twice recently we have encountered a male of the Nessus Sphinx, Amphion nessus Cramer (Lepidoptera : Sphingidae), feeding in a manner that we suspect may be unusual in hawkmoths.

On 29 May 1970 at about 1400 hrs. E.D.T. a male was captured (by J.C.E.R.) feeding on the carcass of a decaying bullfrog on a bush road near the Queen's University Biological Station at Chaffeys Locks, Leeds County.

On 15 June 1971, there were large windrows of dead fish on the sandy beach at Sandbanks Provincial Park, Prince Edward County. Close to noon on that day, when it was cool and somewhat overcast, with a brisk southwesterly wind, a male



Pegau, Robert E. 1972. "Reflowering in some Tundra Plants in October near Nome, Alaska." *The Canadian field-naturalist* 86(2), 161–162. <u>https://doi.org/10.5962/p.343554</u>.

View This Item Online: https://www.biodiversitylibrary.org/item/89146 DOI: https://doi.org/10.5962/p.343554 Permalink: https://www.biodiversitylibrary.org/partpdf/343554

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