

THE PHENOLOGY OF NOVA SCOTIA, 1921.—BY A. H. MACKAY,
LL.D., Halifax.

These observations were made by the school children of the Province of Nova Scotia as a part of the Nature Study work prescribed. The pupils report by bringing into the school-room the flowering or other specimens when first observed, for authoritative determination by the teacher, who generally credits the first finder by placing the name and the observation on the honor roll section of the blackboard for the day. The teacher, after testing the correctness of the observation, marks it on the schedule with which every teacher is provided—a copy of which is sent in to the Inspector with the school returns at the end of June and January.

The following tables are compiled from 140 of the best schedules out of the 350 sent in. The selections were made and compiled under the direction of Mr. H. R. Shinner, B. A., and Miss Annimae Bill, of the Education Department.

The schedules for each year are carefully bound up in large annual volumes which are placed in the Provincial Museum and Science Library, where they can be used by students of climate, etc. The compilers of the phenochrons of the different belts, slopes or regions, have been rural science teachers who have most distinguished themselves as instructors. They were selected for the purpose on the recommendation of the Director of rural science education. The sheets from which the provincial phenochrons are calculated are also bound in annual folio volumes for ease of consultation and preservation.

The Province is divided into its main climate slopes or regions not always coterminous with the boundaries of counties. Slopes, especially those to the coast, are subdivided into belts, such as (a) the coast belt, (b) the low inland belt, and (c) the high inland belt, as below:

No.	Regions or Slopes	Belts
I.	Yarmouth and Digby Counties,	(a) Coast, (b) Low Inlands, (c) High Inlands.
II.	Shelburne, Queens & Lunenburg Co's,	
III.	Annapolis and Kings Counties,	(a) South Mts., (b) Annapolis Valley, (c) Cornwallis Valley, (d) North Mts.
IV.	Hants and Colchester Counties,	(a) Coast, (b) Low Inlands, (c) High Inlands.
V.	Halifax and Guysboro Counties,	
VI.a.	Cobequid Slope (to the south),	" "
VI.b.	Chignecto Slope (to the northwest),	" "
VII.	Northumberland Straits Slope (to the n'h),	" "
VIII.	Richmond & Cape Breton Co.'s	" "
IX.	Bras d'Or Slope (to the southeast),	" "
X.	Inverness Slope (to Gulf, N. W.),	" "

The ten regions are indicated on the outline map on page 157.

THE PHENOLOGY OF NOVA SCOTIA, 1921.

(Compiled from the best 140 out of 350 local observation schedules.)

WHEN FIRST SEEN.											YEAR 1921.	WHEN BECOMING COMMON.										
OBSERVATION STATIONS.											Day of the year corresponding to the last day of each month. Jan. 31 July 212 Feb. 59 Aug. 243 March 90 Sept. 273 April 120 Oct. 304 May 151 Nov. 334 June 181 Dec. 365 For Leap Year add one to each except January.	OBSERVATION REGIONS.										
1.Yarmouth and Digby	2.Shel. Queen & Lunenburg.	3. Annapolis and Kings	4.Hants and Colchester	5.Halifax & Guysboro	6a. Cobequid Slope	6b. Chignecto Slope	7.Northum. Sts. Slope	8.Richmond and Cape Breton	9. & 10. Inverness and Bras d'Or Slope	Average dates.		Average dates.	1.Yarmouth and Digby	2.Shel. Queen & Lunenburg.	3. Annapolis and Kings	4.Hants and Colchester	5.Halifax & Guysboro	6a. Cobequid Slope	6b. Chignecto Slope	7.Northum. Sts. Slope	8.Richmond and Cape Breton	9. & 10. Inverness and Bras d'Or Slope
90	89	101	106	105	110	130	107	106	113	106	1. <i>Alnus incana</i> , Wild.	110	102	98	112	113	112	115	...	111	110	119
105	124	107	118	97	...	123	123	117	118	115	2. <i>Populus tremuloides</i>	121	112	127	116	127	105	...	127	130	122	122
88	94	93	101	103	105	103	106	111	117	102	3. <i>Epigaea repens</i> , L.....	102	103	105	105	115	111	114	112	114	117	119
99	121	117	121	122	111	120	122	128	120	118	4. <i>Equisetum arvense</i>	124	109	127	120	126	126	117	127	126	133	123
112	148	...	123	125	...	125	120	127	127	126	5. <i>Sanguinaria Canadensis</i>	131	115	151	...	128	128	...	131	125	133	140
111	114	116	119	118	117	117	119	122	123	118	6. <i>Viola Blanda</i>	123	118	123	121	126	124	122	120	123	127	123
115	121	119	122	125	119	123	124	129	125	123	7. <i>Viola palmata</i> , <i>cuscutata</i>	128	122	126	125	128	130	126	127	129	133	130
130	123	120	122	124	...	...	...	126	...	123	8. <i>Hepatica triloba</i> , etc.....	137	181	130	130	130	123	...	129	...	...	134
113	118	115	123	129	...	...	123	131	120	123	9. <i>Acer rubrum</i>	127	128	124	122	128	134	120	...	128	135	127
112	120	116	121	123	120	122	121	124	124	120	10. <i>Fragaria Virginiana</i>	128	121	128	124	131	132	126	131	128	130	132
152	150	156	154	161	157	158	156	164	151	153	11. " fruit ripe.....	167	168	167	165	164	170	162	168	164	173	169
117	124	122	124	127	123	127	128	131	126	125	12. <i>Taraxacum officinale</i>	132	127	130	128	132	131	130	133	133	135	140
118	124	131	131	141	129	123	119	...	...	127	13. <i>Erythronium Americanum</i>	137	136	133	153	134	145	135	132	124	...	...
120	121	129	129	131	128	133	131	133	132	129	14. <i>Coptis trifolia</i>	132	123	132	133	126	133	122	138	136	138	138
...	120	121	128	122	124	123	123	117	122	125	15. <i>Claytonia Caroliniana</i>	130	...	...	125	126	138	126	148	128	128	125
132	133	129	132	135	129	122	140	141	140	133	16. <i>Nepeta Glechoma</i>	139	133	133	136	140	142	140	128	144	146	144
120	132	125	133	137	134	134	134	143	139	133	17. <i>Amelanchier Canadensis</i>	138	128	136	130	138	141	135	139	138	147	147
...	...	...	159	...	...	...	178	201	...	179	18. " fruit ripe.....	210	...	...	...	...	...	...	...	...	210	...

PHENOLOGICAL OBSERVATIONS IN

121	137	134	138	145	139	134	138	151	140	138	19.	Prunus	Pennsylvanica	144.	135	142	139	148	147	143	140	141	155	145	
141	147	146	152	155	150	159	153	160	145	151	20.	"	fruit ripe	203	178	178	141	140	141	144	150	142	144	154	158
119	133	134	136	136	142	136	139	150	151	138	21.	Vaccinium	Can. and Penn.	145	132	141	140	141	144	150	142	144	144	151	158
			235				222	209		222	22.	"	fruit ripe	227											
123	141	142	146	151	144	148	147	155	154	145	23.	Ranunculus	acris	154	148	149	148	155	156	153	154	153	161	158	
147	146	147	151	154	152	155	155	161	161	153	24.	R. Repens		159	152	153	152	158	169	157	158	161	165	166	
136	138	135	145	144	139	137	141	148	146	141	25.	Trill.	erythrocarpum	148	144	150	142	149	150	142	147	147	151	154	
128	138	137	143	143	142	143	148	151	153	143	26.	Rhododendron	Rhodora	148	137	145	143	148	148	145	147	153	155	160	
133	146	142	146	151	147	153	146	151	153	147	27.	Cornus	Canadensis	152	144	152	146	153	156	150	156	150	156	157	
	170						221			195	28.	"	fruit ripe	205											
135	143	137	143	147	147	143	141	150	148	143	29.	Trientalis	Americana	150	145	150	145	148	152	148	152	146	155	155	
141	147	146	152	155	150	159	153	160	145	151	30.	Clintonia	borealis	166	145	152	154	156	156	153		156	165	152	
	142	150	154	164	162		150	164	158	156	31.	Calla	palustris	159		148	152	158	170			152	168	162	
143	149	148	154	153	150	147	157	162	157	152	32.	Cypripedium	acaule	158	150	155	153	158	159	162	154	161	167	163	
145	149	145	149	156	151	153	153	161	158	156	33.	Sisyrinchium	angustifol	156	151	155	148	155	160	152	159	153	166	163	
156	157	148	159	160	165	167	163	167	160	160	34.	Linnaea	borealis	164	163	163	157	156	165	163	171	168	173	157	
143	153	147	146	144	147	139	155	157	150	148	35.	Kalmia	glauca	152	148	158	151	151	153	153	140	156	161	150	
147	159	154	154	160	163	142	152	174	154	156	36.	Kalmia	angustifolia	163	154	166	159	163	169	168	148	158	178	163	
149	146	149	152	160	160	153	157	160		154	37.	Crataegus	oxycantha	159	154	153	151	158	167	165		159	165	157	
164	152	147	149	157			152	161	152	154	38.	Crataegus	oxycantha, etc	161	170	158	152	154	161			157	167	168	
154	165	155	159	165	162	157	162	168	168	162	39.	Iris	versicolor	167	162	169	164	164	170	165	162	165	172	163	
151	156	153	158	164	161	159	157	163	157	158	40.	Chrysanthemum	Leucanth	165	161	162	160	168	167	166	166	163	169	165	
156	160	155	157	163	160	159	160	165	159	159	41.	Nuphar	advena	164	161	165	163	164	167	168	164	165	171	156	
144	153	150	154	160	162	160	149	162	149	154	42.	Rubus	strigosus	162	157	162	156	162	165	168	166	162	168	162	
		134		164			204	176	169	43.	"	fruit ripe	184								165	197	213	160	
152	163	164	165	171	171		170	171	160	165	44.	Rhinanthus	Crista-galli	170	161	169	173	170	176	174		173	175	165	
149	160	158	161	163	172	163	160	170	169	163	45.	Rubus	villosus	168	165	168	164	167	169	172	170	165	174		
							239			239	46.	"	fruit ripe	247								243	251		
162	167	166	161	170		161	168		165	165	47.	Sarracenia	purpurea	170	167	171	170	165	174		164	174		173	
162	170	159	170	172	165		165	170	172	167	48.	Brunella	vulgaris	172	169	175	163	175	176	170		170	174	174	
169	171	161	168	165	169		171		172	168	49.	Rosa	lucida	174	177	176	171	178	174	173		174		172	
155	157	162	166	167	159	164	163	163	163	163	50.	Leonodon	autumnale	169	161	165	168	174	171	166	172	166	174	168	
164	156	159	176	178	130	157	167	158	160	160	51.	Linaria	vulgaris	160		169	165	170			146	130	173	162	
119	130	123	125	131	123	123	128	137	132	127	52.	Trees	appear green	140	134	141	133	137	147	137	150	137	146	142	
128	134	132	140	147	145	146	138	147	150	141	53.	Ribes	rubrum (cultivated)	144	132	142	137	146	150	151	137	144	152	150	
		181	168				175	54.		178	54.	"	fruit ripe	178			181	174							
127	136	138	142	145	147	149	133	149	150	143	55.	R. nigrum	(cultivated)	148	131	141	141	147	149	152	160	145	155	154	
	177						177	56.		177	56.	"	fruit ripe	177			177								
129	140	133	142	148	147	145	140	153	147	142	57.	Prunus	Cerasus	148	139	145	137	144	157	151	152	145	159	150	
	178	176	176				177	58.		177	58.	"	fruit ripe	182		178	189	178						159	
130	140	134	139	149	152	146	139	155	147	143	59.	Prunus	domestica	149	140	147	139	144	152	157	155	146	160	149	
132	141	135	143	147	142	141	142	153	149	142	60.	Pyrus	Malus	148	142	147	141	148	153	146	147	147	159	153	
141	149	146	148	154	151	152	149	162	151	150	61.	Syringa	vulgaris	156	149	156	151	157	160	156	155	154	166	155	
150	153	153	156	158	154	159	156	160	157	156	62.	Trifolium	repens	161	156	161	159	162	164	160	163	162	166	160	
139	147	149	154	158	158	159	156	160	159	154	63.	Trifolium	pratense	160	146	156	153	161	164	163	165	162	166	165	
153	148	160	168	163	152	168	171		166	161	64.	Pheleum	pratense	168	162	155	170	170	167		175	172		169	
172	172	171	169	164						120	65.	Solanum	tuberosum	173	181	163	172							178	

THE PHENOLOGY OF NOVA SCOTIA, 1921.—Continued

WHEN FIRST SEEN.										WHEN BECOMING COMMON.																																								
OBSERVATION STATIONS.										OBSERVATION REGIONS.																																								
1. Yarmouth and Digby	2. Shel. Queen & Lunenburg.	3. Annapolis and Kings	4. Hants and Colchester	5. Halifax & Guysboro	6a. Cobequid Slope	6b. Chignecto Slope	7. Northum. Sts. Slope	8. Richmond and Cape Breton.	9. & 10. Inverness and Bras d'Or Slope	Average dates	YEAR 1921																																							
										Day of the year corresponding to the last day of each month.																																								
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										Feb. 59 Aug. 243																																								
										March 90 Sept. 273																																								
										April 120 Oct. 304																																								
										May 151 Nov. 334																																								
										June 181 Dec. 365																																								
										For Leap Year add one to each except January.																																								
1. Yarmouth and Digby	2. Shel. Queen & Lunenburg.	3. Annapolis and Kings	4. Hants and Colchester	5. Halifax & Guysboro	6a. Cobequid Slope	6b. Chignecto Slope	7. Northum. Sts. Slope	8. Richmond and Cape Breton.	9. & 10. Inverness and Bras d'Or Slope	Average dates	82a. Wild geese migrating N.	82b. " " " " S.	83. Melospiza fasciata	84. Turdus migratorius	85. Junco hiemalis	86. Actitis macularia	87. Sturnella magna	88. Ceryle Alcyon	89. Dendroeca coronata	90. D. aestiva	91. Zonotrichia alba	92. Trochilus colubris	93. Tyrannus Carolinensis	94. Dolychonyx oryzivorus	95. Spizis tristis	96. Setophaga ruticilla	97. Ampelis cedrorum	98. Chordeiles Virginianus.	99. First piping of frogs	100. First appearance snakes																				
84	77	77	76	75	74	75	77	77	90	78	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
81	800	286	322	305	298	...	302	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
89	77	70	73	72	72	78	73	71	76	73	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
90	83	76	84	71	80	89	88	87	118	85	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
94	111	97	113	129	106	...	130	120	122	114	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
138	112	98	122	130	136	...	199	133	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
100	130	128	126	121	106	...	131	123	139	134	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
107	107	120	134	130	109	...	130	122	136	121	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
128	135	135	138	130	...	151	141	141	160	139	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
79	105	127	127	128	...	128	116	124	106	116	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
144	150	143	142	144	145	147	139	151	161	147	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
...	136	123	137	140	145	140	137	146	...	138	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
...	147	133	137	141	161	...	136	137	140	142	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
137	146	139	135	130	165	...	131	145	142	141	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
142	161	124	143	138	143	150	143	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
136	140	151	151	135	125	...	129	...	138	138	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
86	115	128	129	129	108	158	114	152	126	125	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
82	93	90	94	100	104	105	100	103	103	97	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes
94	103	111	113	106	114	102	114	111	115	108	82a	Wild geese migrating N.	82b	" " " " S.	83.	Melospiza fasciata	84.	Turdus migratorius	85.	Junco hiemalis	86.	Actitis macularia	87.	Sturnella magna	88.	Ceryle Alcyon	89.	Dendroeca coronata	90.	D. aestiva	91.	Zonotrichia alba	92.	Trochilus colubris	93.	Tyrannus Carolinensis	94.	Dolychonyx oryzivorus	95.	Spizis tristis	96.	Setophaga ruticilla	97.	Ampelis cedrorum	98.	Chordeiles Virginianus.	99.	First piping of frogs	100.	First appearance snakes

THUNDERSTORMS—PHENOLOGICAL OBSERVATIONS, NOVA SCOTIA, 1921

The indices indicate the number of stations from which the Thunderstorms were reported on the day of the year specified

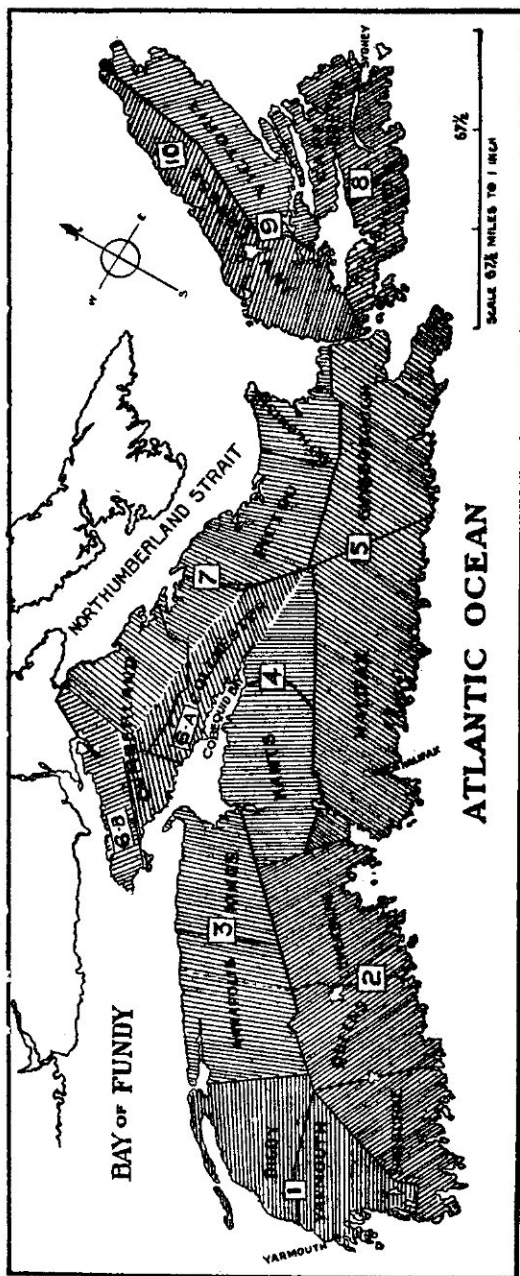
OBSERVATION REGIONS

1. Yarmouth & Digby	2. Shelburne, Queens & Lunenburg.	3. Annapolis & Kings.	4. Hants & Colchester.	5. Halifax & Guysboro.	6a. Cobequid Slope.	6b. Chignecto Slope.	7. Northum. Sts. Slope.	8. Richmond & Cape Breton.	9 & 10. Inverness & Bras d'Or Slope.	Total 1921
164 ⁴	164 ⁴	146 ³	164 ⁴	164						164 ²¹
165	165 ³			165 ²			165			165 ⁷
166 ²	166 ³	166	166 ³	166 ⁶						166 ¹⁸
	167	167	167	167						167 ⁴
				168						168
	170									170
						171				171
172	172		172	172		172	172 ³			172 ⁸
	173			173						173 ²
174	174 ²	174 ⁵	174 ⁵	174 ²		174 ⁵	174 ⁵	174		174 ²⁴
	175 ⁴		175					175		175 ⁶
	176	176	176 ²							176 ⁴
177		177 ³	177 ³							177 ¹²
	178		178 ³							178 ⁴
	191									191
								199		199
								225		225
	226									226
230										230
								239		239
							242			242
								258		258
							266			266
							276 ²			272 ²
							280			280
	281	281					286			281 ²
							290			286
										290
	293							293		293 ²

THE LOCAL COMPILERS FOR EACH REGION, 1920.

- Region No.
 I. Miss Mary B. Marshall
 II. Miss Violet Mailman
 III. Miss Olive I. Banks
 IV. Miss Dorothy C. Black
 V. Miss Alice C. Archibald

- Region No.
 VIa. Miss Laura I. Davison
 VIb. Miss Georgina Landry
 VII. Miss Dorothy Cameron
 VIII. Mr. D. K. Finlayson, B. A.
 IX & X. Miss C. M. Warren



THE TEN PHENOLOGICAL REGIONS OF NOVA SCOTIA.